

# Who's Got My Extra?

A Social Analysis of Ticket Scalping Regulations in Colorado's Music Market

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## Definitions

**Asymmetric Information** – a market failure that occurs when one or more stakeholders have access to more or better information than another.

**Cost-Benefit Analysis (CBA)** – the quantitative analysis of a policy alternative's costs and benefits; determines overall value of the solution.

**Extra** – slang for an additional ticket a person is trying to sell. "Who's Got My Extra?" refers to a person looking for a ticket.

**Face Value** – the value assigned to a ticket by the box office; can be referred to as the primary market value.

**Net Present Benefit (NPB)** – the overall quantitative benefits or cost-savings generated from an alternative.

**Net Present Cost (NPC)** – the overall quantitative costs of an alternative.

**Net Present Value (NPV)** – the overall quantitative worth of an alternative; "the difference between the present value of the benefits and the present value of the costs."<sup>1</sup>

**Primary Market** – the original ticket marketplace with tickets sold directly from the event box office. The event promoters, artists, and venue set ticket prices in the primary market.

**Secondary Market** – the online ticket resale market.

**Tertiary Market** – street level ticket resale market.

**Ticket Scalping** – selling a ticket for a price different than the box office amount "almost always that the second price included a premium of some amount."<sup>2</sup>

**Willingness-to-Accept (WTA)** – the amount of money a person must be paid to agree with a certain policy alternative.

**Willingness-to-Pay (WTP)** – the amount of money a person is prepared to pay for a specific good or overall policy alternative.

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<sup>1</sup> Boardman et al., 15.

<sup>2</sup> Segrave, 1.

## I. Executive Summary

Ticket scalping has an inherent market failure in that it provides asymmetric information to both ticket consumers and producers. It is additionally complicated by conflicting viewpoints. Ticket scalping is viewed negatively because consumers are forced to act with misinformation about tickets' true availability and value<sup>3</sup> and because producers' ticketing profits are lowered.<sup>4</sup> Ticket scalping is viewed positively because consumers can access otherwise sold out events<sup>5</sup> and producers benefit from externalities of scalping's effect on selling more tickets.<sup>6</sup>

This policy memorandum analyzes potential consumer benefits of different ticket scalping regulations in Colorado. Current ticket scalping laws in Colorado "are among the most lenient in the country, with no restrictions on ticket-resale transactions."<sup>7</sup> These current laws warrant further analysis because it remains unknown if other forms of ticket scalping regulation will provide greater benefits for consumers in Colorado. Ticket scalping can have adverse influences in marketplaces and consumer protections, and this analysis quantitatively measures these effects on stakeholders.

Potential alternative regulatory measures for Colorado were selected from the existing policies in other states. Alternative policies include Florida's regulations on the amount of tickets purchased, New York's regulations on resale prices, and Connecticut's regulations on resale criteria. The effects of each state's policies on stakeholder's costs and benefits is measured by analyzing state's current ticket costs and availability, consumers' value of ticket availability, producer revenues, and ticket sale amounts.

This analysis concludes that Policy Option 4: Regulating Resale Criteria creates the most benefit for Colorado stakeholders because of its consumer protections and implementation feasibility. It is recommended that the Colorado legislature implement resale criteria regulations on ticket scalping to improve consumers' market prices, consumer protections, and producer revenues.

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<sup>3</sup> Goff and Tollison.

<sup>4</sup> Happel and Jennings.

<sup>5</sup> Harrington and Harrington.

<sup>6</sup> Eckard and Smith.

<sup>7</sup> Drayer, 227.

## II. Problem Definition

Unregulated ticket scalping has too much detrimental influence on consumer purchases of tickets. Many subsidiary problems result from an unregulated ticket scalping market. Three are as follows:

1. Unregulated scalping drives the primary market cost of tickets down, having producers lose money. It also drives the price of scalped tickets up, having some consumers pay more money.
2. Unregulated scalping makes it difficult for consumers to know the true value of tickets, giving consumers asymmetric information.
3. Additionally, unregulated scalping allows for too much counterfeit ticketing in the tertiary market.

## III. Issue Introduction

Ticket scalping is very prevalent in entertainment event sales. It is estimated that 10 percent of all primary tickets are resold as scalped tickets and that 20<sup>8</sup> to 30<sup>9</sup> percent of top-tiered seats are scalped. Each year the ticket resale industry is estimated to produce revenues between \$4 billion<sup>10</sup> and \$5 billion with an annual growth rate of 12 percent.<sup>11</sup> Ticket resale's prevalence is undisputed, but its contribution to entertainment events is debated. Conflict over the industry's most beneficial regulation practices opens the need for analysis of various regulations' potential effects.

### Ticket Scalping Dispute

The ethics and economics of ticket scalping are highly disputed. Parties in favor of regulating scalping are concerned with consumer protections, fair market practices, and black market manipulations. Consumers are confronted with misinformation about a ticket's true availability and value based on their limited event knowledge and proximity to an event.<sup>12</sup> Producers are negatively affected by ticket scalping because it manipulates original ticket pricing to be placed below market worth due to incentives to sell

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<sup>8</sup> Hubbard.

<sup>9</sup> Boyle and Chiou, 211.

<sup>10</sup> LeBlanc.

<sup>11</sup> Schroeder et al., 1.

<sup>12</sup> Goff and Tollison.

out shows. Scalpers additionally take box office sales away from producers for non-sold out shows because scalped tickets are sold at less expensive prices than face value.<sup>13</sup>

Parties in favor of leaving ticket scalping unregulated want to apply consumer's willingness-to-pay for scalped tickets to determine prices. They also want to allow free choice to determine ticket markets. If consumers are willing to pay over the face value for tickets, scalpers serve as a beneficial provider to those who can afford otherwise unavailable tickets. However, this restricts poorer, often more dedicated, fans negatively and raises issues of scalping's effect on equity and fairness.<sup>14</sup> Producers benefit from scalping's role as a price discriminator because it helps ensure that events are sold out, even if scalping lowers potential box office revenues. Producers also benefit from externalities of sold out events from the non-ticket sales of parking, refreshments, and merchandise.<sup>15</sup> Though supporters and opponents of ticket scalping both have valid arguments, this policy analysis does not debate whether scalping is good or bad; rather, it accepts that the indecision is a market force and seeks to measure regulatory methods to produce the greatest benefit to consumers in dealing with problems created by ticket scalping.

Ticket scalping is an issue of public policy because of a ticket's role as a social contract. A ticket is a contract to consumers, guaranteeing ticket-holders event entry. Part of that contract is the value of tickets, which is printed on the ticket in most circumstances. Ticket scalping is a public policy interest because scalping increases the chances of the contract's guarantee of event entry to be disrupted by counterfeit tickets. Additionally, scalping manipulates the price that is not agreed upon in the first iteration of the contract between primary sellers and consumers. As such, a good policy will preserve the guarantee of a ticket's ability to gain the ticket-holder event entry, satisfy consumers' feelings of fairness concerning price differences between primary, secondary, and tertiary market tickets, and allow adequate availability of tickets. Alternatively, a bad policy will not provide consumer protections against counterfeit tickets, disregard fairness to consumers in ticket pricing, and restrict the availability of tickets for scalpers' profiteering. A ticket sells a unique experience; it is time sensitive and will not always be

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<sup>13</sup> Happel and Jennings.

<sup>14</sup> Harrington and Harrington.

<sup>15</sup> Eckard and Smith.



available. In a sense, a ticket can be considered priceless because it sells an experience and not a tangible, transferable good. That sense of pricelessness allows scalpers to sell tickets to time-restricted consumers for prices they otherwise would not be willing-to-pay because of potential limited ticket availability as an event reaches its deadline.<sup>16</sup> It is the role of public policy to equalize consumers' willingness-to-pay and the amount consumers end up paying. The role of the state in enforcing this public policy is necessary because it is the only entity capable of setting penalties for behaviors and practices that are determined to negatively impact the public consumer's good and welfare.

### **Brief History of Ticket Scalping**

Ticket scalping has been regulated at the state level across the country since the late 1800s with unique regulative policies in differing states.<sup>17</sup> However, ticket scalping regulations were deemed an unconstitutional overextension of state power on ticket scalping's private industry by the federal Supreme Court in the early 1900s.<sup>18</sup> Regulations were considered a violation of due process, and state courts appropriately disbanded their unique scalping laws to comply with federal regulations. Though many early 1900s rulings enforced restrictions on state's abilities to regulate private industry, *United Theatre Ticket Offices v. Banton* (1927) notably prohibited a New York ticketing regulation. Regulations on ticket scalping were deemed constitutional only when "the business or the property involved has become 'affected with a public interest,'"<sup>19</sup> which ticket scalping was not previously considered. This definition changed in *Nebbia v. New York* (1934) when the Supreme Court ruled that states could set the price of milk because it was "affected with a public interest."<sup>20</sup> The Court has since allowed state legislatures to enact and enforce economic policies that are considered in the interest of consumers. Many states have since reinstated their ticket scalping laws or created new ones. Currently, 29 states have unique ticket scalping laws.<sup>21</sup>

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<sup>16</sup> Goff and Tollison, 137.

<sup>17</sup> Bell, 443.

<sup>18</sup> Ibid, 443-444.

<sup>19</sup> Ibid, 444.

<sup>20</sup> Ibid.

<sup>21</sup> Kaufman, 3.

More recently, a federal regulation for ticket scalping has been proposed in the Better Oversight of Secondary Sales and Accountability in Concert Ticketing Act (BOSS ACT). The act was proposed by New Jersey Representative Bill Pascrell, and is named after famed New Jersey musician and outspoken anti-scalping artist Bruce Springsteen, "The Boss." The Act would stop ticket brokers, defined as those who sell over 25 tickets a year, from purchasing tickets for the first 48 hours that they are on sale.<sup>22</sup> However, the BOSS ACT had many initial problems including its inability to be properly enforced, its absence of addressing automated ticket purchases and paperless tickets, and its ultimate unlikelihood of becoming a law due to political aversion.<sup>23</sup> The bill was originally proposed in 2009 but was struck down in committee. It was reintroduced in 2012 with additions to address automated electronic purchases and paperless tickets, but nothing has resulted from this reintroduction. Ultimately, the unlikelihood to pass national legislation prompts this memo's analysis to focus on state regulations.

A relatively newer area of concern in ticket scalping is in online sales. Ticket scalping markets have moved to online sales in large quantities since it has become an easier and more efficient way to advertise and sell tickets. However, state ticket regulations are unenforceable for online sales because of interstate commerce laws.<sup>24</sup> Enforcement for online sellers within state lines is also negligible because the possibility exists that they could sell the same ticket from out of state. As such, only a federal regulation would affect online sales; but, the example of ticket scalping regulations failing previously at the national level with continued political gridlock on the issue nullifies the effectiveness of federal legislation impacting online sales. It also warrants the further investigation of scalping regulation's effects at the state level despite unenforceability of online sales.

### **Artists' Take on Scalping**

Though music is an art form, it is not an ascetic, purely anti-materialistic endeavor. There is money to be made in music, and artists recognize this aspect of their creative entertainment. Paul McCartney of the Beatles recognized music's monetary ability by sharing, "John [Lennon] and I literally

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<sup>22</sup> Harrington and Harrington, 18.

<sup>23</sup> Ibid.

<sup>24</sup> Drayer, 227.

used to sit down and say, 'Now let's write a swimming pool.'"<sup>25</sup> Paul Simon acknowledges this same role that money plays in music by stating, "The fact of the matter is that popular music is one of the industries of the country. It's all completely tied up with capitalism. It's stupid to separate it."<sup>26</sup> With music's ability to make money addressed, it is important to view how scalping affects artists' ability to make this money.

Today's music market is vastly different from the market of even just a few decades ago. Whereas artists used to be able to rely on record sales to make their profit, the digital age has rendered that an unreliable form of revenue. In 2005, 80% of albums and 85% of singles did not recover their costs.<sup>27</sup> These rates are bound to have increased in the present day due to the increased relevancy of the Internet and the accompanying ability to pirate music and purchase single songs rather than whole albums. As a result of this change, artists now rely on live performance revenues to remain profitable. Scalping undercuts artists' potential profits directly and reduces the ability for artists to continue their musical pursuits.

In addition to fighting scalping because of the lost profits it renders, there are many successful artists who are pointedly against ticket scalping because it decreases their fans' access to affordable tickets. Tom Petty caps the price of his tickets below market value so that tickets are affordable to his fans.<sup>28</sup> He has also made an individualized effort to stop ticket scalping at his concerts by voiding tickets purchased from his fan club that are later listed online for above face-value prices.<sup>29</sup> Rolling Stones front man Mick Jagger has a similar disposition towards scalping. On scalping differences from the United Kingdom, Jagger notes, "It's a bigger problem in the U.S., more difficult to contain, but they don't even try. ...Each state should make secondary reselling illegal."<sup>30</sup> Though many artists hold this view, there are many barriers to prevent scalping. Most notable is the high profits that scalping creates.

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<sup>25</sup> Krueger, 2.

<sup>26</sup> Ibid.

<sup>27</sup> Ibid, 5.

<sup>28</sup> Eckard and Smith, 466.

<sup>29</sup> "Petty Fights Back..."

<sup>30</sup> Perry.

## Why Colorado?

Colorado is currently among the most unregulated states for ticket scalping. Colorado laws allow season ticket holders to sell individual tickets at any price and protect those that resale season tickets from being restricted against buying future season tickets. Colorado laws also protect consumers who purchase scalped tickets by preventing sanctions from that practice and ensuring ticketholder's entry regardless of where they obtained their ticket. Consumer protections are also acknowledged in Colorado law by requiring resellers to provide a refund for counterfeit tickets, tickets falsely advertised, and for canceled events,<sup>31</sup> but the practicality of obtaining such a refund is not ensured. With these loose regulations on scalping, Colorado's laws are an ideal indicator to measure against other regulated states.<sup>32</sup>

Further, Colorado is an ideal case study because it has a large share in the music industry. Anschutz Entertainment Group (AEG), the controlling partner of AXS ticketing, is headquartered in Denver.<sup>33</sup> LiveNation, the controlling partner of TicketMaster and AEG's biggest rival, also has large stakes in Colorado's music market by owning venues such as Fiddler's Green Amphitheatre and Fillmore Auditorium and having regional offices in Denver. The tax revenue generated by this industry for the state warrants the need for businesses' financial changes from potential policies to be considered.

Colorado's geographical location provides itself to be an important position for touring musicians to travel through. Denver's isolated location as the only major city within a 500-mile radius makes Denver and surrounding smaller cities a logistical location for events to take place in cross-national tours.<sup>34</sup> Supporting the geographic necessity for artists to come to Denver is a music industry infrastructure with integrated business, studio, venue, and demographic elements that support live music of all genres. Age demographics and lifestyles in Colorado support touring music, and Colorado is not restricted to one niche genre market. A variety of musical genres play in Colorado and have specialized

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<sup>31</sup> Colorado Consumer Protection Act, CRS § 6-1-718.

<sup>32</sup> Drayer, 227.

<sup>33</sup> The Anschutz Corporation History.

<sup>34</sup> Weissman and Jermance, 20.

and shared venues to host.<sup>35</sup> As such, there is wide diversity in the consumers that a ticket scalping policy would affect.

Legislation putting price caps on ticket scalping was proposed in Colorado in 2009. The bill would have capped tertiary market tickets at \$5.00 or 125%, whichever was the greater amount.<sup>36</sup> The bill was unanimously voted down in a Senate committee.<sup>37</sup> The given reasoning for the bill's failure was that "artificial price caps work against the free market."<sup>38</sup> The committee's reasoning inferred that free market determinates of supply and demand sufficiently addresses the woes of ticket scalping. However, this reasoning does not recognize the detrimental affects uncapped prices have on reducing ticket availability and increasing counterfeit culpability. No similar bills have been proposed since 2009.

#### IV. Methods

A ticket scalping policy comparison is conducted in this analysis by measuring the effects of Colorado, Florida, New York, and Connecticut's pertinent policies. Each state has a different scalping policy that has potential for adoption in Colorado to allow for greater consumer benefits. Data on the costs and benefits of different policies affecting each stakeholder was collected and compared to Colorado's existing policy to project how each policy would influence Colorado markets. Table 1 outlines the proposed policy options:

**Table 1: Brief Explanation of the Four Ticket Scalping Policy Options for Colorado**

Policy Option 1: Retain the Status Quo	Keep Colorado's policy of minimal regulations on ticket scalping procurement techniques, price setting, and resale criteria
Policy Option 2: Limit Purchase Amount	Adopt Florida's policy of regulating the amount of tickets available for purchase from the original seller
Policy Option 3: Limit Resale Price	Adopt New York's policy of regulating the resale price of tickets by a targeted amount or by percentage of retail price
Policy Option 4: Regulate Resale Criteria	Adopt Connecticut's policy of regulating resellers' shared personal information, shared ticket information, and distance from a venue

<sup>35</sup> Weissman and Jermance, 7-20.

<sup>36</sup> Payne.

<sup>37</sup> Sealover.

<sup>38</sup> Ibid.

## Data Selection

Qualitative data was used to understand the ticket scalping topic and its effects on stakeholders, to analyze the effects of policy implementation, and to estimate quantitative projections. Information came from a diverse selection of sources including academic articles, industry articles, and non-academic articles such as blogs and entertainment articles to represent all aspects and interpretations of ticket scalping.

Quantitative data was used to collect information on various scalping regulations' effects. TourIntel provided artists' and venues' box office information to track ticket sales in differing states. SeatGeek provided a value index of consumers' utility for scalped tickets, allowing consumer value to be quantified. Data on the amount of live music events that occur in a year was calculated from venue websites and other reputable sources such as reliable music blogs and promotional websites to predict the economic impact policies will have on statewide music markets.

Non-sporting entertainment events were used in this analysis. The economics of ticket pricing is dependent upon a team's popularity, which can be volatile depending on their success season-to-season. Sports were excluded from this analysis because the effect of their tickets on the market is not stable, and they cannot be analyzed with the same consistency in outcomes as non-sporting events.

## Data Use

TourIntel box office data measures venues' and artists' average reported ticket price, average available tickets sold, average reported attendance, average venue capacity, and average reported concert gross.<sup>39</sup> This information is used to measure the value ticket producers gain and consumers are willing to pay for entertainment events. Comparing data collected at different states' venues allows for the effects of ticket scalping policies to be analyzed. TourIntel's data is obtained from verified box office reports that are voluntarily submitted by venue management, concert promoters,<sup>40</sup> and artists.<sup>41</sup> Accounting for

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<sup>39</sup> TourIntel.

<sup>40</sup> "Where does the information..."

<sup>41</sup> "Do you accept box..."

weaknesses surrounding this data collection method,<sup>42</sup> this analysis of TourIntel data assumes that correlations are significant between the select data collected and the data's total representation of each state's live music market. TourIntel data was collected for every venue with a capacity over 2,000 in each state analyzed.<sup>43</sup>

SeatGeek measures consumer utility from scalped tickets and resellers revenue. SeatGeek is a search engine that compiles all available secondary market tickets onto their website and ranks them by their Deal Scores. Deal Scores accumulate consumers' perceived value of available tickets based on "historical ticket prices for the performer and the venue, the row location, the expected sightline from the section, and the quality of the other available tickets for the event."<sup>44</sup> Deal Scores are used to calculate consumers' utility from scalped tickets using a willingness-to-pay function.<sup>45</sup> SeatGeek displays a tickets' Deal Score along with its price, and the secondary market host as shown in Image 1.<sup>46</sup>

Amazing Deals			
93	Section 105 4 e-tickets	Redbox	\$78/ea
92	Section 105 4 tickets	Razorgator	\$82/ea
Great Deals			
77	Section 102 3 tickets	TN Direct	\$181/ea
76	Section 105 4 tickets	ebay	\$75/ea
73	Section 104 3 tickets	StubHub!	\$95/ea
73	Section 110 2 tickets	TN Direct	\$117/ea
72	Section 107 4 tickets	TN Direct	\$100/ea

Image 1: Deal Score Example

Resellers' revenue is collected from SeatGeek by pricing scalped tickets on the assumption that their Deal Score acts as a percentage of their likelihood to be purchased at their listed price. SeatGeek data was collected for 20 events in each state with the top 20 Deal Scores and their ticket's prices being collected at intervals of one month, one week, and one day before the event. Even though sample size is statistically significant at 30,<sup>47</sup> there were often not this many listings for tickets to an event and the later listings had lower Deal Scores that were unlikely to be purchased. Additionally, time constraints did not

<sup>42</sup> Further discussed in "Weaknesses and Limitation" p. 36.

<sup>43</sup> See Appendices A, B, C, and D.

<sup>44</sup> "Frequently Asked Questions: How..."

<sup>45</sup> See CBA Methodology p. 29 for more details.

<sup>46</sup> "James Taylor Tickets..."

<sup>47</sup> Hogg and Tanis.

allow for the collection of 30 unique events in each state. To make up for these shortfalls, data was collected in multiple sets for individual events to make the collected data more significant.

### **Evaluative Criteria for Successful Policy**

Although the significance of the data can and should be questioned, there remains enough validity and available information to properly assess each policy's potential benefit to consumers. As such, the most successful policy in terms of monetary impact is the one with the highest ratio of the tertiary market consumer benefit to the primary market consumer benefit. A valuable contributing factor to this ratio is determined by each policy's fairness to consumers, which is quantified through the use of Deal Scores.

Each policy's total Net Present Value (NPV) will also be measured by the costs and benefits attributed to each stakeholder: Primary Market Consumers, Tertiary Market Consumers, Primary Ticket Producers, Tertiary Ticket Producers, Taxpayers, and Law Enforcement. Qualitative policy effects of enforceability, consumer fairness, and political feasibility will be taken into consideration as well, but not to the same extent as each policy's NPV because those effects cannot be adequately quantified. Though the NPV will be calculated for all stakeholder impacts, the ratio between tertiary and primary market consumer benefits is used to measure a policy's effectiveness because it is the greatest indicator of scalping policies on ticketing markets and consumer protections.

A final criterion for success is the likelihood for implementation. A policy that can produce favorable quantitative results is useless if it cannot be enacted. Successful implementation includes political feasibility of enactment as well as logistical possibility.

### **Scope of Analysis**

The scope of information utilized in this analysis is very specific, and there is reasoning behind its specificity. Events were only measured at venues with capacities of 2,000 or more because they provide more notable economic output than smaller venues, have more significant data available on past sales than smaller venues, and are more reflective of societal music preferences than smaller venues. In utilizing box office data, the only available information is what has been voluntarily reported.



Weaknesses of this scope are discussed later in this analysis.<sup>48</sup> Lastly, the data from other states is translated to how the policies will affect Colorado. The analysis measures states with varying scalping laws and then translates that data to estimates of how those laws would effect Colorado markets with comparisons of available venues, average numbers of events, and average concert revenues.

## V. Issue Analysis

There are many aspects to consider when analyzing ticket scalping regulation. The identification of all stakeholders and how they will be affected, the true effect of potential policy, the proper level of intervention, the political likelihood for regulation, and the implementation barriers must all be accounted for.

### Stakeholders

Consumers, the ticket buyers, are the stakeholders with the primary measure of utility gained or lost from scalping regulations. Consumers can be divided into two groups: “head-bangers” and “foot-tappers.”<sup>49</sup> “Head-bangers” are the dedicated, die-hard fans who artists want to provide affordable, high-quality seating for. “Foot-tappers” are casual fans who do not contribute spillover benefits to an event’s environment but are often able to afford higher-priced seats that attract scalpers to automate bulk purchases of tickets. A difficulty exists in addressing the different consumer types in calculating to what extent a policy should benefit each type of consumer.

Primary ticket producers are large stakeholders in ticket scalping. This group includes event venues, promoters, and primary ticket sellers such as Ticketmaster and AXS. They are directly affected by regulations on scalpers because of the affect regulations have on the amount of tickets purchased through the primary market. Artists are similarly affected stakeholders. The same effect of scalping regulations on primary producers directly affects how much money artists can make from live events and the availability of tickets to their supporters. Artists also want to ensure they can provide affordable

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<sup>48</sup> See “Weaknesses and Limitations” p. 38.

<sup>49</sup> Harrington and Harrington.

tickets to their fans to both get their dedicated fans in the door and provide a favorable experience that will bring them to their next concert.<sup>50</sup>

Scalpers are also stakeholders in ticket scalping regulations, and there are many different types of scalpers to account for. There are online marketplaces where individuals can sell their tickets such as StubHub and TicketsNow, there are online brokers who specialize in finding customers specific tickets such as Amy's Tickets and Vividseats, there are one-off scalpers who overbought personal tickets for an event, and there are street level scalpers outside of events. Online resellers usually offer authenticity guarantees. Other websites, such as Craigslist, allow person-to-person ticket sales, but offer no authenticity guarantees. Street scalpers can often be found in near proximity to events, but there is often no guarantee on their tickets' authenticity unless state laws require licensed resellers to sell in a predetermined location or have specific selling criteria restrictions such as in Connecticut.

Government entities are also affected by scalping reform. Enforcement agencies must attempt to make sure that laws are being enforced. If a new ticket scalping policy is enacted, it is the duty of designated enforcement agencies to administer its affects. Legislators must also become involved to enact laws, whether it occurs on a municipal, state, or national level. To have ticket policies change, there must be legal statutes recognizing their change.

Though all these entities are affected, the stakeholder that scalping policy reform is targeted to most influence is ticket consumers. It is targeted towards bettering the experience, reliability, and fairness of ticket purchases for consumers. Consumers purchasing tickets in the primary market have assurances that their tickets are authentic and are purchased at the price designated by the event promoter. Tertiary-market consumers do not have these assurances. Tertiary-market consumers run the risk of purchasing counterfeit tickets, paying exorbitant prices for tickets, and not finding tickets to an event. Different policies aim at reducing particular risks for consumers, be it in counterfeit protections, price protections, or availability assurances. As such, ticket scalping regulations are aimed towards helping consumers, and the other stakeholders play a role providing the consumer assurances of ticket scalping policies.

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<sup>50</sup> Eckard and Smith, 466.

## Scalping's Market Effects

Regulation on ticket scalping can be interpreted as having both positive and negative effects because the practice is not agreed upon as beneficial or harmful. There are even varying views within each stakeholder group. Primary market producers can interpret regulations as beneficial because scalpers are able to price discriminate better. Though this lowers primary market producers' potential profits, it also discourages other primary producers' market entry.<sup>51</sup> Additionally, regulated legal scalpers provide primary producers with beneficial information on consumer's willingness-to-pay, allowing future revenues to be increased.<sup>52</sup> Alternatively, producers benefit from unregulated scalping because it increases ticket sales that would otherwise remain unsold,<sup>53</sup> allowing for positive externalities from sold out events, concessions, merchandise, and parking.<sup>54</sup> Producers also benefit from leaving scalping unregulated because their costs would increase from legislative lobbying efforts and subsequently required enforcement of legislation.<sup>55</sup>

Consumers have been known to benefit from regulating scalpers as it stimulates attendance. Ticket scalping regulations increased audience attendance at plays and musicals from 21 to 45 percent.<sup>56</sup> This allows for more people to enjoy the events. Regulated scalping creates comfort in consumer protections by absolving worry from purchasing counterfeit tickets.<sup>57</sup> However, regulating scalping also creates fewer productions per capita for consumers to derive utility from.<sup>58</sup> Additionally, unregulated scalping serves as insurance that consumers can sell a ticket they are unable to use, stimulating their overall likelihood to purchase tickets in the first place.<sup>59</sup>

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<sup>51</sup> Boyle and Chiou, 211-12.

<sup>52</sup> *Ibid.*, 213.

<sup>53</sup> Boyle and Chiou, 212.

<sup>54</sup> Happel and Jennings, 67.

<sup>55</sup> Swofford, 533.

<sup>56</sup> Boyle and Chiou, 217.

<sup>57</sup> *Ibid.*

<sup>58</sup> *Ibid.*, 218.

<sup>59</sup> *Ibid.*, 212.

## Levels of Implementation

The proper level of implementation must be selected to have the greatest amount of consumer benefit that is practically feasible. The potential levels of implementation include national, state, and local. There are currently no national laws regulating ticket scalping, and the most recent attempt at passing one with the BOSS ACT did not gain much traction. Though the federal jurisdiction within the nation's federalism structure would encompass all scalping and ensure it is regulated uniformly across states, the feasibility of federal legislation passing is questionable. Individual states have the highest likelihood of enacting scalping policy. Most commonly today, ticket-scalping regulation is handled by states. A problem arises in states having different scalping laws with online sales being able to nullify state laws through federal interstate trafficking laws,<sup>60</sup> but state law remains the most viable method of regulation due to federal legislation's unlikelihood. Municipal and local laws have some history of being effective in major cities such as New York City and Chicago,<sup>61</sup> but Denver is the only city in Colorado worth pursuing a local law based on its population size. The rest of Colorado would similarly benefit from any law that Denver chooses to pursue. As such, the best level to regulate ticket scalping is the state. Although state laws cannot be enforced in online markets, there is enough potential impact from street-level activity and personal transactions to warrant regulation.

Individual artists have implemented scalping regulations for their own events, but this does not equate to the best public policy for protecting all consumers. Though Mick Jagger wants each state to make scalping illegal, his interviewer suggests that Jagger self-regulate by eradicating the need for scalping at his shows. If the Rolling Stones heeded by suggestions to increase their prices, play larger venues, and play multiple nights at each city on a tour, then the demand for their shows would not require scalped tickets.<sup>62</sup> However, this is speculation that has never been implemented. Other artists have successfully reduced scalping at their shows. Tom Petty canceled tickets purchased from his fan club that

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<sup>60</sup> Drayer, 227.

<sup>61</sup> Bell, 443-451.

<sup>62</sup> Perry.

were listed online as above face value tickets, refunding over 600 tickets in total.<sup>63</sup> Comedian Louis CK implemented a similar cancellation policy for his tickets that were listed online above face value. He lowered scalping rates of his tickets by 96% using this method.<sup>64</sup> Other prominent commercial successes such as Miley Cyrus, Bruce Springsteen, and Nine Inch Nails' Trent Reznor use nontransferable paperless tickets reduce scalping at their concerts.<sup>65</sup> However, these policies' successes are not translatable to overall increases in consumer protections. Though they serve as case studies for potential policies, the level of implementation is not appropriate to increase overall consumer protections for all events without preferences for particular artists. Individual artists have an open medium to explore individual ticketing policies, but if each artist had individualized ticketing policies, consumers overall would be at risk because of the lack of uniformity amongst policies. For this reason, universal policy is the best method to implement scalping policy and state government is the best method to implement universal policy.

### Political Factors of Regulation

Federal legislation is not politically feasible, even though it would be the most effective way to regulate ticket scalping with online sales gaining more prevalence in the market. Additionally, many states have more recently changed their laws to favor scalping deregulation. New York allowed greater profit margins for scalpers in 2001,<sup>66</sup> Illinois discontinued restrictions on registered scalpers charging above face value in 2005,<sup>67</sup> Florida changed their scalping laws to allow for scalper profits of more than \$1 in 2006,<sup>68</sup> and Minnesota took away their ban on scalpers charging above face value in 2007.<sup>69</sup>

Lobbyist groups exist on both sides of the debate.<sup>70</sup> The Fans First Coalition supports regulation against scalpers<sup>71</sup> and is primarily funded by Ticketmaster.<sup>72</sup> The Fan Freedom Project supports free

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<sup>63</sup> "Petty Fights Back..."

<sup>64</sup> Devine, 26.

<sup>65</sup> Associated Press.

<sup>66</sup> Drayer, 227.

<sup>67</sup> Ibid, 228.

<sup>68</sup> Boyle and Chiou, 211.

<sup>69</sup> Ibid.

<sup>70</sup> Sisario.

<sup>71</sup> "Fans First Coalition."

<sup>72</sup> Smith.

market practices<sup>73</sup> and is primarily funded by StubHub.<sup>74</sup> The Fan Freedom Project has been effective lobbying supportive laws in New York, Florida, and Pennsylvania.<sup>75</sup> With heavy funding backing both organizations, the political viability of one lobby influencing more than the other is counterbalanced, and the decision made by the Colorado legislature to make a policy change is most likely to be influenced by internal factors rather than external lobbying efforts.

The likelihood for ticket scalping regulation in Colorado is also questionable. Legislation proposed in 2009 was unanimously voted down in Senate committee. There have been no efforts since to revitalize ticket-scalping regulations. Additionally, trends in other states have also recently favored deregulation as noted in New York, Illinois, Florida, and Minnesota. For scalping regulation reform to viably pass in Colorado, the suggested policy would have to show strong support of consumer protections and bettering ticket markets, have reliable research supporting these claims, and have strong political backing.

### **Implementation Barriers**

One of the most significant arguments against ticket scalping regulations is that it does not stop scalping because it is difficult to enforce.<sup>76</sup> Difficulties in enforcing ticket-scalping laws are a major hindrance to logistically enacting their regulations and making the effort to enact their regulations worthwhile. Not only is enforcement “sporadic and arbitrary,” but few arrests result in conviction because scalped ticket consumers are unlikely to testify against scalpers because they willingly pay them for their tickets and services.<sup>77</sup> Similarly, though it is understood that online sales cannot be regulated, online sellers encourage users to abide by state laws, but do not enforce any regulations even in sales within state lines.<sup>78</sup> Even with potential economically sound policy, difficulties in enforcement weaken regulatory policies overall.

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<sup>73</sup> “Fan Freedom.”

<sup>74</sup> Parker-McClain.

<sup>75</sup> Devine, 8.

<sup>76</sup> Rabe, 63.

<sup>77</sup> Happel and Jennings, 73.

<sup>78</sup> Drayer, 228.

Law enforcement's disdain to act on scalping laws and additional costs of enforcement also serve as implementation barriers. Even with associated difficulties enforcing ticket scalping regulation, there is additional resistance with law enforcement simply not wanting to enforce such regulations. Police have reported that they do not care about enforcing ticket scalping, do not look for it, and do not typically punish scalping violators.<sup>79</sup> Many



Image 2: Scalping Gray Area

scalpers operate within gray areas of the law, holding universally understood signs stating “I Need Tickets” that alert customers of their scalper status while not openly admitting to selling tickets.<sup>80</sup> Image 2<sup>81</sup> displays such a sign with additional tickets for sale in hand. Any extra costs associated with enforcing ticket scalping, even if menial, serve as a barrier to implementing regulation.

## VI. Proposed Solutions

The following policy options were selected for analysis based on the differences in their approaches to handling ticket scalping. Furthermore, the four policy options currently exist in four different states, which allows for quantitative analysis between each policy's effects. This qualitative analysis defines each policy and compares the advantages and disadvantages of each policy. Because the qualitative analysis cannot definitively conclude the extent of the advantages and disadvantages of each policy, a quantitative analysis is later included to define the degree of each policy's effectiveness.

### Policy Option 1: Retain the Status Quo – Colorado Model

Ticket resale laws in Colorado currently leave the issue unregulated and “are among the most lenient in the country.”<sup>82</sup> In Colorado, ticket resellers must guarantee full refunds if the ticket sold does

<sup>79</sup> Ibid, 232.

<sup>80</sup> Ibid.

<sup>81</sup> Lecka.

<sup>82</sup> Drayer, 227.

not admit entry for any reason, but there is no traceable method of finding the source of one's scalped ticket purchase. Ticket resellers are also unrestricted from having their resell prices set, from selling season/subscription tickets, and are guaranteed the right to future season/subscription tickets despite their resale. Purchasers of resold tickets are also prohibited from being sanctioned or denied entry to an event.<sup>83</sup> Implementing this policy option entails having no change in current Colorado law.

### ***Policy Option 1: Advantages***

Advantages of this policy option include all of the arguments for deregulated ticket scalping. Proponents of ticket scalping deregulation argue that an unregulated market reflects true supply and demand and operates at the maximum efficiency that the market can allow. Consumers have greater ticket availability for prices they are willing to pay and will receive happiness from their event attendance beyond the burden of their increased cost. Primary producers benefit from scalpers assisting in selling out their events and creating non-ticket revenue.<sup>84</sup> Primary producers also benefit because the guarantee of scalped tickets is a requirement for some notorious artists to perform at certain venues because the venue relies on an upfront payment,<sup>85</sup> generating venue prestige and accompanying revenues. Scalpers benefit as they do not have to concern themselves with the legality of their practices. This allows scalpers to operate at a greater revenue-producing potential without the distraction of legal deception and compliance with certain restrictions.

This policy also has the advantage of already being in place. As such, it has the easiest implementation. It does not require law enforcement to take on extra tasks as the other policies do. Additionally, this policy option does not require additional costs for enforcement or legislation. Enforcement of ticket scalping regulations is very difficult, and not having to enforce them increases the effectiveness of law enforcement's presence at events as peacekeepers and safety respondents. Politically, legislation to enact scalping regulations is not guaranteed, and retaining the status quo guarantees that legislative resources will not be wasted by a fruitless attempt at generating new, controversial law.

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<sup>83</sup> Colorado Consumer Protection Act, CRS § 6-1-718.

<sup>84</sup> Spindler, 698.

<sup>85</sup> Rabe, 63.



### ***Policy Option 1: Disadvantages***

Even though Colorado law guarantees that resellers must provide refunds for tickets that do not admit entry, this guarantee is almost impossible to enforce without requirements for scalpers to share their personal information. This disadvantage couples with other issues of weakened consumer protections from deregulated ticket scalping. Consumers are more vulnerable to buy counterfeit tickets and have no guarantee of recompense. Street scalpers only take cash, which can be difficult to refund for counterfeit tickets. Counterfeit tickets are also most likely to be purchased at the street level because many online secondary retailers have authenticity guarantees. Additional problems with unregulated scalping are defined in the problem statement and mentioned throughout this analysis. It allows for scalpers to purchase tickets in bulk to manipulate availability, for unfair price setting to consumers, and for scalpers to manipulate primary market ticket costs below their full market potential.

### **Policy Option 2: Limit Purchase Amount – Florida Model**

Ticket resale laws in Florida limit the amount of tickets that scalpers can purchase. It is illegal for ticket purchasers to buy a quantity of tickets more than the primary producer allows for the explicit intention of resale.<sup>86</sup> Primary marketplaces such as AXS Ticketing and Ticketmaster often limit individual purchases to 8 tickets. Florida law also prevents resale over \$1 for certain attractions such as amusement parks, events within amusement parks and entertainment complexes, and charitable event tickets under capacities of 3,000.<sup>87</sup> For these criteria, Florida law dictates that online sales can charge any amount so long that authenticity and refund guarantees are in place,<sup>88</sup> acknowledging the limitations of interstate trafficking regulation. Although resale price is limited for these certain events, those that are limited are not within the scope of this analysis. Therefore, Florida law's example of limitations on purchase amounts does not also correlate to restrictions on resale prices and can be used solely as an indication for the value of policy limiting scalpers' purchase amounts.

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<sup>86</sup> 2011 Florida Statutes. FS § 817.357.

<sup>87</sup> 2011 Florida Statutes. FS § 817.36 (1) (b) (c).

<sup>88</sup> 2011 Florida Statutes. FS § 817.36 (1) (d).

### ***Policy Option 2: Advantages***

This policy ideally prevents scalpers from buying massive allotments of tickets which prevents fans from buying tickets when they first go on sale in the primary market and raises ticket prices to undesirable amounts because of strained availability. In a Senate Subcommittee testimony, LiveNation CEO Michael Rapino identified bulk purchases as a major problem taking ticket availability away from fans, raising prices for events, and taking profits away from performers, promoters, and venues.<sup>89</sup> This policy allows for fans to have more time to decide to buy tickets and does not force fans to buy tickets the day they go on sale. It increases box office availability for consumers. This policy makes the practice of obtaining more tickets than allowed by the primary producer illegal, but there are several ways that scalpers bypass these regulations.

### ***Policy Option 2: Disadvantages***

A key disadvantage to this policy is how difficult it is to enforce. It is nearly impossible to keep track of who buys which tickets and how many in an industry that is increasingly reliant on online sales. Additionally, a significant amount of bulk ticket purchasing is conducted online through automated systems that cannot be regulated due to interstate traffic laws. "Bots" automatically buy tickets for scalpers upon their online release in bulk amounts. Scalpers can use multiple bots to obtain more tickets than are allowed for any one individual. Though there are some prevention systems to discourage bots, notably Completely Automated Public Turing Tests to Tell Computers and Humans Apart (CAPTCHAs) that requires certain texts to be entered that are supposedly indistinguishable for computers, many advanced programs bypass these security measures.<sup>90</sup> Though security measures and ticketing service's Terms and Services all assist in preventing bulk purchases, they can not control the practice outright.<sup>91</sup>

Though bulk purchasing is largely conducted via online sales through the use of automated programming, "diggers" are also utilized by scalpers. "Diggers" are people who are paid by scalpers to

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<sup>89</sup> Rapino.

<sup>90</sup> Harrington and Harrington, 20.

<sup>91</sup> Devine.

stand in line and obtain tickets for desirable seats in high amounts.<sup>92</sup> Not only do they buy tickets, but diggers use harassment, intimidation, and potential physical harm to other ticket buyers to ensure they have the best selection of tickets.<sup>93</sup> The use of diggers puts average fans at risk and compromises their ability to purchase more desirable tickets in an equitable way. Unfortunately, it is also difficult to regulate digger's purchasing tactics as this policy only restricts individuals' purchase amounts from the primary seller and does not regulate the total amount an individual can purchase in secondary and tertiary markets.

### **Policy Option 3: Limit Resale Price - New York Model**

Ticket resale laws in New York incorporate price restrictions. They also place certain other restrictions on resale criteria. New York law requires ticket resellers to be licensed and guarantee authenticity or refunds.<sup>94</sup> It also places restrictions on the distance from an event that a ticket can be sold. A ticket can only be legally resold by licensed parties within 1,500 feet of a venue with a capacity over 5,000 or within 500 feet of a venue with a capacity of 5,000 or fewer if it is sold in a designated reselling area determined by the event operator.<sup>95</sup> What sets New York apart from other states' resale criteria is its price restrictions. New York regulates maximum prices for resale to be 145% of face value for events with capacities over 6,000 and to be 120% for events with capacities of 6,000 or less.<sup>96</sup> These policies are constitutional because they have been determined to support the public good, allowing for private businesses and box offices to sell tickets at a fair-market price and prevent the allure of counterfeit tickets with reduced profit margins for scalpers.<sup>97</sup>

### ***Policy Option 3: Advantages***

The primary advantage of this policy is that it restricts scalpers from charging consumers exorbitant prices for tickets. It also does not wholly restrict scalpers, allowing for consumers to benefit by having availability to tickets. Primary market consumers benefit from increased box office availability as

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<sup>92</sup> Rabe, 60.

<sup>93</sup> Rabe, 60. Glantz, 283.

<sup>94</sup> *Arts and Cultural Affairs Law, Article 25*. NY ACA § 25.03.

<sup>95</sup> *Arts and Cultural Affairs Law, Article 25*. NY ACA § 25.11.

<sup>96</sup> Kaufman, 10. *Arts and Cultural Affairs Law, Article 25*. NY ACA § 25.07.

<sup>97</sup> Cooper, Moore, and Devault.

scalpers are less likely to needlessly buy tickets with caps on their profit-making abilities. This also allows for less necessity to buy tickets immediately, benefitting consumers by not requiring tickets to be purchased immediately upon release. Additionally, primary ticket producers benefit because scalpers will still be able to buy tickets, assisting venues in selling out events, but cannot overly degrade the price of primary tickets because their lowered profit margins take away a portion of their market control.

### ***Policy Option 3: Disadvantages***

A disadvantage of this policy is that it does not affect online markets. This takes away from the policy's benefits to consumers on price protections, increased availability, and less time demand to purchase tickets. It also weakens benefits to producers by allowing resellers greater control of price setting in the ticket market.

An additional disadvantage of this policy lies in the difficulty to enforce it. The dual stipulations of requiring resellers to maintain distance from the venue and regulating price controls are counterintuitive because the enforcement of price controls is most likely to occur in front of the venue where law enforcement is also required for safety issues. Despite being able to enforce regulations within designated resale zones within the proximity of the venue, resellers are unlikely to be monitored for price gouging when they maintain the required distance from the venue.

### **Policy Option 4: Regulate Resale Criteria - Connecticut Model**

Ticket resale laws in Connecticut focus on consumer protections by having specific criteria resellers must follow for transactions to be legal. Resellers are required to reveal service charge amounts to all potential buyers.<sup>98</sup> Resellers are also required to provide full refunds for tickets that do not perform their advertised task of event entry and must provide ticket purchasers with their name and contact information if the need for a refund arises.<sup>99</sup> Recently, purchasers have begun to photograph resellers' government issued identification with mobile phone cameras to insure that the information provided is accurate and the seller can be reached if a ticket does not access event entry. Ticket resale is also

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<sup>98</sup> Chapter 946 Offenses Against Public Policy. CGS § 53-289a.

<sup>99</sup> Chapter 946 Offenses Against Public Policy. CGS § 53-289b.

prohibited within 1,500 feet of the venue on the day of the event with the exception that ticket brokers can sell tickets from their offices if they are within the designated prohibited range.<sup>100</sup> These laws are set to insure that consumers are protected to the greatest extent possible against counterfeit tickets and are ensured accurate information about primary market costs.

#### ***Policy Option 4: Advantages***

The inherent advantage of this policy is that it enhances consumer protections. It increases consumers' security of not purchasing fraudulent or counterfeit tickets when they choose to purchase scalped tickets, and if consumers are denied event entry, they are guaranteed a refund because the law grants access to scalper's identity information. Consumer protections also assist in reducing the market failure of asymmetric information by insuring that consumers have availability to accurate information on ticket prices including additional fees.

Parties supporting deregulated ticket sales would support this policy over the other suggestions because it allows for ticket prices to emulate an untouched market's pricing and availability more so than the other regulative policies' restrictions.

#### ***Policy Option 4: Disadvantages***

Disadvantages of this policy lie in scalpers' ability to price and obtain tickets without restriction. Its only advantage is in information and not in the practice of making prices closer to original market value or ensuring tickets are originally obtained within the restrictions that primary market producers allocate to individuals. A disadvantage of the requirement for scalpers to provide their personal information to consumers lies in scalpers' abilities to falsify information, but this disadvantage is not substantial as it is unlikely for scalpers to undertake such measures to sell fake tickets and the issue of identity falsification is a more serious crime than selling bad tickets.

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<sup>100</sup> Chapter 946 Offenses Against Public Policy. CGS § 53-289c.

## VII. Cost-Benefit Analysis

An ex ante CBA is utilized in this memorandum's analysis to compare the quantifiable aspects of the policies' effects on stakeholders before the policies are implemented. The CBA contrasts the net present benefit (NPB) with the net present cost (NPC) of each policy to generate the policy's overall net present value (NPV). In addition to each policy's NPV, each policy's ratio of tertiary market consumer benefit to primary market consumer benefit is calculated to compare the policy's direct effect on market behavior and consumer preferences.

### CBA Methodology

All stakeholders' costs and benefits are analyzed for the potential implementation of differing ticket scalping regulation policies. The stakeholders include primary market consumers, tertiary market consumers, primary ticket producers, tertiary ticket producers, and taxpayers in the form of their payment for legislation and law enforcement surrounding policy reform and implementation. This CBA Methodology analyzes how the costs and benefits for each stakeholder are determined and explains where the relevant information comes from.

Primary market consumers' cost is determined by their willingness-to-pay (WTP) the amount they currently pay for tickets. The cost they are willing-to-pay for a policy that shapes ticket sales is displayed in the amount and cost of tickets they buy at the primary market level. For different policies, this is measured by accumulating the total ticket sales for large venues in states with laws reflecting the suggested policy changes. The WTP for primary market consumers is measured by multiplying the average reported ticket price, the average available number of tickets sold by the venue's capacity, and the number of events in a year for each venue. This amount is then summed for each venue measured. TourIntel provides the box office information with reputable figures that is reported by venue management and concert promoters. TourIntel also configures averages from the data provided which serves in this analysis as a base from which the primary market costs can be measured. This CBA's estimates of average concert revenues and costs will remain constant as the TourIntel averages were

compiled with 13 years of data.

The benefit derived from primary consumers' utility is determined by multiplying the actual percentage of people that attend a concert, the average ticket price, and the number of concerts per year at the venue, determining their willingness-to-pay for concerts. This is different from the costs because it accounts for the difference from those that paid for primary market tickets and those that actually attended the concert. TourIntel reports each of these averages. This estimated benefit also remains the same per year because of how the data was collected.

The benefit derived from tertiary market consumers can be determined by their willingness-to-pay for scalped tickets. This is derived from a willingness-to-pay (WTP) function that measures the amount above face value that tertiary market consumers will pay for scalped tickets. The function multiplies the difference in tertiary market ticket cost from the primary market ticket costs and multiplies this difference by the percentage of likely purchase indicated by the ticket listing's Deal Score. Information on the probability of acceptance was gathered through SeatGeek Deal Scores that measure the consumer value of all secondary market ticket prices available online. Though online secondary market prices are not wholly reflective of the value of street level prices, the Deal Score still indicates a consumers' WTP for tickets at street level prices, and Deal Scores provide the best indicator of what street level ticket prices would be in an otherwise unregulated black market. SeatGeek was used to record the best 20 Deal Scores of 20 concerts in each state. The WTP was calculated and multiplied by the number of events that occur in a given year in Colorado's larger venues to determine the money spent, on average, on secondary and tertiary market tickets.

The policy benefit derived from primary market producers is determined by how much money producers receive from ticket sales. Multiplying a venue's average gross per concert to the number of concerts per year and then summing the totals of the different venues calculate this number. Tourintel.com provides the venue information for this data. The data collected from non-Colorado states is compared to Colorado data in to transfer the potential policy effects to a Colorado market. This takes place in the event occurrences per year which were attributed to non-Colorado states based on similarities

in capacity and average gross per events.

The policy costs derived from primary market producers equates to how much potential money producers could have made if they had sold out every show but did not either due to low demand or scalpers undercutting their full prices. Subtracting the amount of tickets sold from the venue capacity and then multiplying this by the average ticket price calculates this amount.

Though tertiary market producers' revenues are virtually untraceable due to the black market nature of its business, they can be estimated. Multiplying the average reported ticket price by the percentage of average available tickets sold and then multiplying this by the number of empty seats and total events in a venue will calculate the amount of potential tertiary market revenue from unsold tickets. TourIntel provides this information. The number equates to the tertiary producers' benefits. Tertiary producers' costs are not calculated because it is the difference in revenues that is taken away by regulation. This is previously accounted for in differences between their benefits.

Additional costs and benefits are calculated for stakeholders not directly involved in the process of ticketing, but that are still affected by changes in ticketing policy. The benefits and costs to taxpayers from the legislative action required to enact policy is another part of this analysis. Law enforcement's costs and benefits are also calculated for the different policies' requirements. The calculations and explanations for the additional stakeholders costs and benefits can be found in Appendix E: Law Enforcement and Legislative Calculations.

### **Price Elasticity of Ticket Demand**

The value of consumers' WTP is calculated based on estimates of their utility derived from each policy. It is determined by the effect of each policy on ticket price, availability, and security against anti-counterfeiting measures. SeatGeek calculates a Deal Score that attributes a value on a scale of 100 to secondary market tickets. A price elasticity of demand function is utilized with each Deal Score and corresponding ticket price to calculate consumers' WTP for tertiary market tickets.



## CBA Summary

The matrix for the entire Cost Benefit Analysis is featured below in Table 2. The calculations for Policy Option 1: Retain the Status Quo – (Colorado model) are displayed and explained in Appendix A. The calculations for Policy Option 2: Limit Purchase Amount – (Florida model) are displayed and explained in Appendix B. The calculations for Policy Option 3: Limit Resale Price – (New York model) are displayed and explained in Appendix C. The calculations for Policy Option 4: Regulate Resale Criteria – (Connecticut model) are displayed and explained in Appendix D. The calculations for law enforcement and legislative costs are displayed and explained in Appendix E.

**Table 2: CBA Matrix**

<b>CBA Matrix</b>	<b>Status Quo: No Policy Change</b>	<b>Alternate 1: Limit Purchase Amount</b>	<b>Alternate 2: Limit Resale Price</b>	<b>Alternate 3: Regulate Resale Criteria</b>
Primary Market Consumers	\$77,140,522	\$125,554,575	\$76,526,157	\$41,359,372
Tertiary Market Consumers	\$36,147	\$61,794	\$200,154	\$51,171
Primary Ticket Producers	\$76,360,249	\$124,810,577	\$72,247,308	\$41,077,663
Tertiary Ticket Producers	\$19,226,391	\$22,429,229	\$7,879,229	\$6,716,354
Taxpayers: Legislative Benefits*	\$55,210	\$0	\$0	\$0
Law Enforcement	\$493,330	\$0	\$0	\$0
<b>Net Present Benefit</b>	<b>\$173,311,849</b>	<b>\$272,856,175</b>	<b>\$156,852,848</b>	<b>\$89,204,561</b>
Primary Market Consumers	\$77,140,522	\$124,735,883	\$74,799,886	\$41,656,962
Tertiary Market Consumers	\$0	\$0	\$0	\$0
Primary Ticket Producers	\$18,625,474	\$23,247,970	\$7,540,517	\$6,418,764
Tertiary Ticket Producers	\$0	\$0	\$0	\$0
Taxpayers: Legislative Benefits*	\$0	\$55,210	\$55,210	\$55,210
Law Enforcement	\$0	\$493,330	\$493,330	\$493,330
<b>Net Present Cost</b>	<b>\$95,765,995</b>	<b>\$148,532,393</b>	<b>\$82,888,942</b>	<b>\$48,624,266</b>
<b>Net Present Value</b>	<b>\$77,545,853</b>	<b>\$124,323,782</b>	<b>\$73,963,906</b>	<b>\$40,580,294</b>
All Benefits and Costs are annual unless otherwise noted				
*One-Time Benefit or Cost				

Though the CBA matrix shows the NPV for each policy's effect on the state it represents, it is more reflective of the state's music market, with NPVs comparable to state demographics more than the effects of policy. The NPVs show that Florida's policy to limit ticket purchase amounts as having the most benefits, but Florida has a larger population than the other states and many large music venues. To

measure policy success without skew from demographic differences a measure of the ratio between the tertiary market consumer benefits and the primary market consumer benefits is necessary. This ratio translates the effect of policies without skew from demographic differences to a Colorado market, where the decision to implement a potential new policy is taking place. It was selected because this analysis aims to select the best policy for consumer market prices and protections; it is not aimed towards producing the most money for market producers. The ratio is displayed in Table 3 below:

**Table 3: Ratio between Tertiary and Primary Market Consumer Benefits**

Ratio Matrix	Status Quo: No Policy Change	Alternate 1: Limit Purchase Amount	Alternate 2: Limit Resale Price	Alternate 3: Regulate Resale Criteria
Primary Market Consumer Benefit	\$77,140,522	\$125,554,575	\$76,526,157	\$41,359,372
Tertiary Market Consumers Benefit	\$36,147	\$61,794	\$200,154	\$51,171
<b>Tertiary/Primary Benefit Ratio</b>	<b>0.0469%</b>	<b>0.0492%</b>	<b>0.2616%</b>	<b>0.1237%</b>

The ratio between tertiary and primary market consumer benefits reveals that New York's policy to regulate resold ticket prices results in the highest tertiary market willingness to pay compared to its primary market consumer benefit. It also reveals that Colorado's policy of no regulation results in the lowest ratio of tertiary market consumer benefit. As such, this analysis reveals that a new policy will benefit Colorado's ticket-purchasing consumers.

### Sensitivity Analysis

The CBA's Sensitivity Analysis takes into account market differences of the alternative policies in different state markets. It attempts to equalize the effect that this analysis will have in implementing other state's policies in Colorado by making the different states' market attributes more equal to Colorado. This sensitivity analysis equalizes the variable measuring the amount of events recorded in each state to be consistent with the amount of events in Colorado. The methods used for equalizing the event numbers can be found in Appendix E Table 32. This equalization was then transferred to each stakeholder attribute of the CBA that the number of events effects to create the alternative Sensitivity Analysis CBA Matrix in Table 4.

**Table 4: Sensitivity Analysis CBA Matrix**

<b>CBA Matrix</b>	<b>Policy Option 1: Status Quo</b>	<b>Policy Option 2: Limit Purchase Amount</b>	<b>Policy Option 3: Limit Resale Price</b>	<b>Policy Option 4: Regulate Resale Criteria</b>
Primary Market Consumers	\$77,140,522	\$119,834,839	\$129,200,088	\$60,971,784
Tertiary Market Consumers	\$36,147	\$61,794	\$200,154	\$51,171
Primary Ticket Producers	\$76,360,249	\$119,124,660	\$122,616,768	\$60,556,443
Tertiary Ticket Producers	\$19,226,391	\$21,407,269	\$14,386,372	\$9,990,936
Taxpayers: Legislative Benefits*	\$55,210	\$0	\$0	\$0
Law Enforcement	\$493,330	\$0	\$0	\$0
<b>Total Benefits</b>	<b>\$173,311,849</b>	<b>\$260,428,562</b>	<b>\$266,403,382</b>	<b>\$131,570,334</b>
Primary Market Consumers	\$77,140,522	\$119,053,396	\$130,163,431	\$61,410,486
Tertiary Market Consumers	\$0	\$0	\$0	\$0
Primary Ticket Producers	\$18,625,474	\$22,188,712	\$13,423,029	\$9,462,234
Tertiary Ticket Producers	\$0	\$0	\$0	\$0
Taxpayers: Legislative Benefits*	\$0	\$55,210	\$55,210	\$55,210
Law Enforcement	\$0	\$493,330	\$493,330	\$493,330
<b>Total Costs</b>	<b>\$95,765,995</b>	<b>\$141,790,648</b>	<b>\$144,135,000</b>	<b>\$71,421,260</b>
<b>Net Present Value</b>	<b>\$77,545,853</b>	<b>\$118,637,915</b>	<b>\$122,268,383</b>	<b>\$60,149,074</b>
All Benefits and Costs are annual unless otherwise noted				
*One-Time Benefit or Cost				

The sensitivity analysis' largest impact was in increasing the amount of events in New York and Connecticut, therefore increasing their primary market consumer costs and benefits. Florida had decreases in these areas because it had slightly more events in the primary CBA than Colorado did. All the results for Colorado's status quo remained constant because there was no change in the number of events. The ranking of the CBA's NPVs remained the same as the primary analysis with New York's policy having the highest NPV and Connecticut's policy having the lowest NPV. Because these results remained very similarly ranked, the impact of the market differences remained apparent. Though the initial sensitivity analysis on the entire CBA matrix equalizes the market differences between states to a degree, the impact of the different policies on the ticket market also needs to be analyzed for the sensitivity analysis to equalizing these differences to the highest degree.

The difference the sensitivity analysis makes in configuring the primary market consumer benefit was also taken into the account of the ratio between tertiary and primary consumer benefits because this is the determinate measure of this analysis' attempt to measure policy effects in different state markets. Because the market attributes in the different states are very wide and create NPVs that are more reflective of the market size than the policy affect, the ratio equalizes the effect that each policy has on its unique market. The ratio measure of the tertiary and primary consumer benefits that accounts for Sensitivity Analysis differences is found in Table 5.

**Table 5: Sensitivity Analysis Tertiary / Primary Consumer Benefit Ratio Measure**

Ratio Matrix	Status Quo: No Policy Change	Alternate 1: Limit Purchase Amount	Alternate 2: Limit Resale Price	Alternate 3: Regulate Resale Criteria
Primary Market Consumer Benefit	\$77,140,522	\$119,834,839	\$129,200,088	\$60,971,784
Tertiary Market Consumers Benefit	\$36,147	\$61,794	\$200,154	\$51,171
<b>Tertiary/Primary Benefit Ratio</b>	<b>0.0469%</b>	<b>0.0516%</b>	<b>0.1549%</b>	<b>0.0839%</b>

The Sensitivity Analysis of the tertiary and primary market consumer benefit ratio has similar rankings of policy effects but with smaller percentages due to the sensitivity analysis' increase in primary market consumer benefits. Colorado remains having the lowest percentage, and New York remains having the highest percentage.

Though the sensitivity analysis takes into account the difficulties and disparities in measuring policies' affects on different state markets by equalizing the variable of event occurrences, there remain differences in the state markets. Even though the ratio between tertiary and primary market consumer benefits compares policy impacts with less skew than a measure of NPV due to demographic differences and the sensitivity analysis compensates this affect further by minimizing variable differences, there are still weaknesses in this and other data collection processes of this entire analysis. The entire weakness and limitations of this analysis are further explored in the next section.

## VIII. Weaknesses and Limitations

Acknowledging the weaknesses and limitations in this analysis is pivotal to validating the contributions to social research that it provides. Refusing to acknowledge weaknesses and limitations disserves the integrity of any research. A full recognition of the weaknesses within research is necessary to identify the true value of what any policy recommendation is worth.

There are several general constraints in this analysis due to the unregulated nature of ticket scalping. General restrictions to black-market information lessens the accuracy of quantitative analysis' real world implications. As such, there are several assumptions that must be made concerning the relationship of various pieces of data.

### General Constraints

A difficulty in enforcing any ticketing regulations serves as a general weakness to all regulatory policy. Though active efforts by venue security and undercover ticket purchasers have proven to effectively identify, regulate, and reduce illegal scalping,<sup>101</sup> anecdotal evidence also suggests that law enforcement agencies unaffiliated with venue interests often ignore ticketing regulations.<sup>102</sup> The use of additional law enforcement is needed to fully enforce scalping regulations, but law enforcement members do not prioritize ticket-scalping regulation when patrolling events. Prosecuting ticket scalpers is often fruitless because ticket purchasers do not have a reason to testify against sellers because they provide a service that consumers willingly participate in.<sup>103</sup>

Ticket scalping regulations are also difficult to enforce because it is problematic to track and find scalpers. The ticket sellers' online communications via anonymous marketplaces such as Craigslist makes tracking in-person transactions that are previously agreed upon online or on the phone almost impossible, and the resources necessary to track such scalping efforts would cost more than their provided benefit. Additionally, once street-level scalping restrictions are in place, it can be assumed that unregulated

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<sup>101</sup> Drayer, 230.

<sup>102</sup> Ibid, 232.

<sup>103</sup> Happel and Jennings, 73.

marketplaces such as online sales will grow where street sales shrink, making enforcement efforts less worthwhile. Though online marketplace activity is easy to monitor, online anonymity makes it more difficult to identify violators.<sup>104</sup> Outright online sales cannot be regulated because of interstate commerce restrictions, and this market is more prevalent in states where scalping restrictions apply, negating the overall efficiency of policy. The unlikely nature for federal legislation to pass based on Rep. Pascrell's failed BOSS ACT attempts allows for online sales to remain unregulated, weakening the effect of state regulations.

An inherent weakness of this analysis rather than of the policies lies in its data collection. Gathering data for ticket scalping can be unreliable due to the unregulated nature of the market. Most scalping economies deal in cash, so unreported occurrences and accompanying lost data do not reflect true market values.<sup>105</sup> Licensed scalpers have a vested interest in underreporting sales because it improves their businesses marketability to consumers.<sup>106</sup> Due to the fickle nature of scalping's reporting, the projected effects of policies on Colorado's music market may be unrealistic to the actual value of their impact.

Another weakness in this analysis' data collection arises from the possibility for a seller to list the same ticket on multiple websites, creating duplicate Deal Scores and prices on SeatGeek, manipulating the integrity of the data collected. Though the data collected rarely shares the same Deal Score and price, it does occur sometimes and may be the result of multiple listings. The possibility does exist that a different seller is selling tickets at a similar price because of market demands even if it is rare. The analysis does not take into account the possibility for multiple listings because the possibility for coincidental price similarities also exists.

Differences in Colorado's, Florida's, New York's, and Connecticut's state demographics are a weakness in that it skews policy comparisons to their likely effects in Colorado. Though this is accounted for in selecting a primary market ratio as the main determining factor of a policy's relevancy and not the

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<sup>104</sup> Ibid.

<sup>105</sup> Rabe, 59.

<sup>106</sup> Ibid.

overall NPV, there are still differences in policy measurement that this does not account for. In constructing the ratio, there was a uniform amount of 20 events selected to measure each state's tertiary market, but the total number of events for the primary market calculations counted each event in the state. This will give a greater NPV and smaller ratio to states with more primary events, skewing the relevancy of data in the other direction than from the calculated NPV. The demographic differences do skew the data to being less statistically significant in each policy's relationship to Colorado, but there are ultimately other factors than just the consumer benefit ratio and NPV that go into deciding the best policy for Colorado.

### **CBA Assumptions**

In addition to weaknesses caused by unreliable data collection, data from TourIntel also has limitations caused by assumptions necessary to make use of its data. TourIntel only has access to box office data that venues and music promoters report.<sup>107</sup> Selectively reporting information can skew results of average gross sales, sales percentages, ticket costs, average venue attendance, and average venue capacity for both artists and venues. Selective reporting misrepresents actual averages and also leaves some artists and venues with very low amounts of reports, further reducing the likelihood of statistical significance for their averages.

TourIntel's data requires several assumptions of its data's statistical significance between variables. The first assumption required is that its data adequately represents each state's live music market from a sometimes limited pool of data. TourIntel data has been reported for 13 years, but reported incidences are volatile, with heavy reporting in some years and little to no reporting in other years. This analysis assumes that the data collected from a specific snapshot in time adequately represents an ongoing music market. The scope of the analysis also provides a weakness in its assumption that analyzing only venues with capacities of 2,000 or more adequately represents a state's music market. Though this size was selected because data is more available for larger venues, economic impact is more significant at

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<sup>107</sup> "TourIntel."

larger venues, and larger venues host higher attended events reflective of more widespread societal preferences, it does neglect niche markets and notable smaller venues such as the Bluebird Theater in Colorado, GrandCentral in Florida, the Bowery Ballroom in New York and Toad's Place in Connecticut. Additionally, despite the selection of venues that have capacities over 2,000, a weakness of the data selection from TourIntel has some unreliable listing venues as having venue capacities slightly under 2,000. This is attributable to flaws in TourIntel's data gathering system. Due to TourIntel's inaccurate listings, some of the CBA data is skewed to represent venues with smaller capacities, though each venue used was crosschecked against official data that certifies a capacity of at least 2,000.

There are also assumptions made in the significance of SeatGeek's data. There were not always 20 listings for each event, which may or may not reflect the amount of tickets scalped at the street level. Similarly, not every listing had a Deal Score though it may have had a price. Listings without Deal Scores were not calculated into costs because the consumer's value for the ticket could not be known. These disparities lessen the tertiary market consumer benefit by not including consumers' additional WTP. As such, the relationship between SeatGeek's data and actual street level availability and prices are not wholly accurate; however, this weakness is uniform for the data collected for each policy, so it does not drastically affect the data's integrity.

Additional cost-benefit calculations from TourIntel and SeatGeek data rely on assumptions of the significance of relationships between variables. Though these assumptions could be considered weaknesses, they are nevertheless essential to conduct this analysis. An example of one assumption is revealed in calculating primary market consumers' utility. This utility is derived by multiplying estimated concert attendance, the average ticket price, and the average number of concerts per year for a select venue. This number equals the amount of money primary consumers pay each year for that venue. The assumption is made that consumers' utility is the same as their willingness-to-pay, that they derive the same quantifiable amount of happiness from their event attendance as the price they paid for the ticket. Another assumption example is revealed in defining primary market producers' costs. These costs are defined as how much money producers lose by having tickets remain unsold. This assumes that primary



tickets would sell out for every event with perfect pricing, but does not take into account revenue differences from varying ticket pricing.

Other major assumptions occur in connecting data to its policy application. Comparing box office and scalping value data from states with varying scalping laws assumes that the live music markets in the different states are comparable. The analysis' methodology takes this into account as much as possible by only analyzing venues with capacities over 2,000 and accounting for demographic differences between states, but differences in touring schedules and music's marketability are not accounted for. Further, the analysis assumes the relationship of the data collected and the state scalping policy is significant enough to validate the policy's affect on ticketing. However, the analysis is reliant on this assumption and there is no simple way to resolve this assumption short of utilizing complex, advanced statistical techniques.

Lastly, the analysis makes the assumptions that the available tickets on secondary online markets relate to tertiary prices and willingness-to-pay. Online regulations are not suggested in this analysis because of their impossibility to enforce outside of unlikely national legislation; therefore, tertiary regulation is suggested. The status of scalping as a black market, cash industry relegates the only recordable information on ticket sales to be taken from the secondary market and makes the assumption of the markets' connectivity.

## **IX. Strategic Recommendation**

This analysis recommends Colorado to adopt Connecticut's policy of regulating ticket resale criteria based on this analysis' criteria for successful policy impact. Foremost, it is the most feasible policy to implement other than keeping the status quo because it does not create changes to disputed ticket economies. A policy regulating ticket prices or amounts is not likely to pass legislation and become implemented in Colorado because the economics of the policies' market effects remain unclear. However, regulating resale criteria does not directly affect market prices and amounts. It keeps the economics of ticket resale to mirror the current deregulated free market that currently exists in Colorado.

Further, Connecticut's policy enhances consumer protections for ticket purchases, creating safer markets and bettering ticket economies through unfiltered free choice as markets operate more truly on the values of true supply and demand when market risks are minimized. With this potential economic effect mirroring existing unregulated market practices, this policy is most likely to be implemented because it provides better consumer protections of guaranteed refunds and reduces the chances of buying counterfeit tickets.

Connecticut's policy of regulating ticket resale criteria also has more favorable economic impacts than the existing Colorado policy. Colorado's tertiary to primary market consumer benefit ratio was the lowest amongst all the policies at 0.0469%. Due to having the lowest ratio, policy changes are recommended to better ticket markets for consumers. Connecticut's tertiary to primary market consumer benefit ratio was the second highest at 0.1237%. Only New York's was higher at 0.2616%. This ratio has more influence than the policies' NPV because the NPVs are skewed by demographic size. As such, the implementation of Connecticut's policy to regulate ticket resale criteria will benefit Colorado consumers' value in ticket prices as well as their safety in purchasing non-primary market tickets.

Based on Colorado's lowest ratio between primary and tertiary market benefits and the multiple disadvantages and market failures associated with deregulated ticket scalping markets, a new policy is suggested. Connecticut's model of regulating resale criteria is the best policy to adopt as it provides consumer protections that reduce market failures and is the most politically feasible option to implement. It is with these guiding factors that this analysis recommends Colorado to implement a policy with similar attributes of Connecticut's ticket scalping regulations that require full information disclosures from scalpers to consumers.

## Appendix A – Policy Option 1: Retain the Status Quo - Colorado Model

**Table 6: Colorado's Primary Market Consumer Benefits**

Venue	Avg. Reported Ticket Price	Avg. Reported Attendance	# of 2013 Concerts	Primary Market Consumer Benefits
Fillmore Auditorium	\$26.73	2,701	44	\$3,176,700
Pepsi Center	\$72.29	11,620	18	\$15,120,176
Ellie Caulkins Opera House	\$36.29	1,383	29	\$1,455,483
1stBank Center	\$56.35	4,856	29	\$7,935,432
Pikes Peak Center	\$35.21	1,326	30	\$1,400,654
Red Rocks Ampitheatre	\$46.64	7,387	90	\$31,007,671
Dick's Sporting Goods Park	\$69.44	25,450	5	\$8,836,240
Boettcher Concert Hall	\$33.80	1,419	35	\$1,678,677
Denver Coliseum	\$32.82	3,959	2	\$259,869
Temple Hoyne Buell Theatre	\$53.30	1,903	12	\$1,217,159
Comfort Dental Ampitheatre	\$34.06	7,417	20	\$5,052,460
			<b>Total CO Primary Market Consumer Benefits</b>	<b>\$77,140,522</b>

Colorado's primary market consumer benefits are calculated by multiplying the average reported ticket price, the average reported attendance, and the number of concerts annually. This amounts to the primary market consumers' total willingness-to-pay for concert tickets in the state.

**Table 7: Colorado's Tertiary Market Consumer Benefit**

Venue	Date & Time Data Collected	Lowest Face Price	Highest Face Price	WTP over Face Avg.	WTP Sum
Fillmore Auditorium	1mo: 11/28/13	\$47.00	\$68.25	\$2.65	\$52.96
	1wk: 12/21/13			\$19.66	\$393.29
	1dy: 12/27/13			\$12.75	\$255.09
Fillmore Auditorium	1mo: 11/29/13	\$47.00	\$68.25	\$2.82	\$56.49
	1wk: 12/22/13			\$25.45	\$509.06
	1dy: 12/28/13			\$11.28	\$225.54
Fillmore Auditorium	1mo: 11/30/13	\$79.75	\$100.25	\$3.53	\$70.64
	1wk: 12/24/13			\$36.39	\$727.81
	1dy: 12/30/13			\$74.99	\$1,499.88
Fillmore Auditorium	1mo: 12/17/13	\$39.50	\$55.00	\$12.22	\$244.45
	1wk: 01/10/14			\$18.61	\$372.24
	1dy: 01/16/14			\$10.17	\$203.43
Fillmore Auditorium	1mo: 12/18/13	\$39.50	\$55.00	\$12.15	\$243.07
	1wk: 01/11/14			\$18.72	\$374.37
	1dy: 01/17/14			\$11.92	\$238.43
Pepsi Center	1mo: 12/19/13	\$39.50	\$125.00	\$27.38	\$547.53

	1wk: 01/12/14			\$78.09	\$1,561.88
	1dy: 01/18/14			\$109.17	\$2,183.44
Pepsi Center	1mo: 12/22/13	\$45.00	\$45.00	\$220.08	\$4,401.66
	1wk: 01/15/14			\$162.42	\$3,248.43
	1dy: 01/21/14			\$147.03	\$2,940.62
Pepsi Center	1mo: 12/23/13	\$29.50	\$75.00	\$27.20	\$543.99
	1wk: 01/16/14			\$50.09	\$1,001.73
	1dy: 01/22/14			\$48.63	\$972.69
Pepsi Center	1mo: 01/11/14	\$40.00	\$250.00	\$60.59	\$1,211.85
	1wk: 02/04/14			\$92.91	\$1,858.23
	1dy: 02/10/14			\$135.36	\$2,707.20
Pepsi Center	1mo: 02/04/14	\$54.70	\$108.20	\$18.38	\$367.69
	1wk: 02/28/14			\$48.91	\$978.27
	1dy: 03/03/14			\$0.00	\$0.00
Fillmore Auditorium	1mo: 12/07/13	\$10.67	\$30.50	\$5.65	\$113.09
	1wk: 12/31/13			\$15.36	\$307.24
	1dy: 01/06/14			\$15.59	\$311.78
Ellie Caulkins Opera House	1mo: 01/03/14	\$40.00	\$100.00	\$17.48	\$349.53
	1wk: 01/27/14			\$3.45	\$69.07
	1dy: 02/02/14			\$0.00	\$0.00
Fillmore Auditorium	1mo: 02/23/14	\$62.50	\$89.25	\$3.54	\$70.76
	1wk: 03/16/14			\$23.38	\$467.69
	1dy: 03/22/14			\$18.30	\$365.90
1stBank Center	1mo: 02/03/14	\$49.50	\$49.50	\$0.00	\$0.00
	1wk: 02/24/14			\$0.00	\$0.00
	1dy: 03/02/14			\$0.00	\$0.00
Pikes Peak Center	1mo: 11/29/13	\$42.00	\$42.00	\$33.77	\$675.46
	1wk: 12/22/13			\$24.06	\$481.27
	1dy: 12/28/13			\$36.69	\$733.72
Pikes Peak Center	1mo: 12/26/13	\$42.25	\$65.00	\$8.72	\$174.42
	1wk: 01/19/14			\$18.39	\$367.89
	1dy: 01/25/14			\$10.72	\$214.40
Pikes Peak Center	1mo: 01/04/14	\$27.50	\$128.00	\$15.99	\$319.71
	1wk: 01/28/14			\$8.80	\$176.01
	1dy: 02/03/14			\$5.40	\$107.92
Red Rocks Amphitheatre	1mo: 12/31/14	\$65.00	\$65.00	\$0.00	\$0.00
	1wk: 01/24/14			\$0.00	\$0.00
	1dy: 01/30/14			\$0.00	\$0.00
Fillmore Auditorium	1mo: 01/07/14	\$39.50	\$52.50	\$6.97	\$139.36
	1wk: 01/31/14			\$0.00	\$0.00

	1dy: 02/06/14			\$0.00	\$0.00
Fillmore Auditorium	1mo: 01/08/14	\$39.50	\$52.50	\$7.01	\$140.14
	1wk: 02/01/14			\$24.39	\$487.78
	1dy: 02/07/14			\$4.09	\$81.75
				<b>Total CO Tertiary Market Benefit</b>	<b>\$36,146.84</b>

Colorado's tertiary market consumer benefits are calculated by summing consumers' willingness-to-pay (WTP) for tickets over face value for 20 events. The difference in ticket prices from the secondary market and primary market were multiplied by SeatGeek's Deal Score as a percentage to create the consumer value for each ticket to calculate the WTP. This amount was taken for the top twenty Deal Scores for each event a month, week, and day before the event. Though this records the same event three times, events were recorded over a four-month span, offering the ability for this recording to more closely replicate the benefit over an entire year. Consumer's WTP was then summed to create the overall WTP, or total tertiary market consumer benefit.

**Table 8: Colorado's Primary Market Producer Benefit**

Venue	Avg. Reported Concert Gross	# of 2013 Concerts	Projected CO 2013 Revenue
Fillmore Auditorium	\$70,506	44	\$3,102,264
Pepsi Center	\$837,236	18	\$15,070,248
Ellie Caulkins Opera House	\$50,666	29	\$1,469,314
1stBank Center	\$265,397	29	\$7,696,513
Pikes Peak Center	\$54,534	30	\$1,636,020
Red Rocks Amphitheatre	\$337,467	90	\$30,372,030
Dick's Sporting Goods Park	\$1,807,376	5	\$9,036,880
Boettcher Concert Hall	\$45,498	35	\$1,592,430
Denver Coliseum	\$129,955	2	\$259,910
Temple Hoyne Buell Theatre	\$96,030	12	\$1,152,360
Comfort Dental Amphitheatre	\$248,614	20	\$4,972,280
	Total CO 2013 Primary Market Producer Benefit		\$76,360,249

Colorado's primary market producer benefits are calculated by multiplying the average reported concert gross to the amount of events annually. This gives producers' total revenues from event ticket sales in the state.

**Table 9: Colorado's Tertiary Market Producer Benefits**

Venue	Avg. Reported Ticket Price	Avg. Reported Attendance	Avg. Venue Capacity	# of 2013 Concerts	Potential Tertiary Producer Benefit
Fillmore Auditorium	\$26.73	2,701	3,620	44	\$1,080,854
Pepsi Center	\$72.29	11,620	13,187	18	\$2,039,012
Ellie Caulkins Opera House	\$36.29	1,383	2,126	29	\$781,941
1stBank Center	\$56.35	4,856	5,442	29	\$957,612

Pikes Peak Center	\$35.21	1,326	1,890	30	\$595,753
Red Rocks Ampitheatre	\$46.64	7,387	9,165	90	\$7,463,333
Dick's Sporting Goods Park	\$69.44	25,450	28,633	5	\$1,105,138
Boettcher Concert Hall	\$33.80	1,419	2,698	35	\$1,513,057
Denver Coliseum	\$32.82	3,959	5,577	2	\$106,206
Temple Hoyne Buell Theatre	\$53.30	1,903	2,811	12	\$580,757
Comfort Dental Ampitheatre	\$34.06	7,417	11,825	20	\$3,002,730
<b>Total 2013 CO Tertiary Market Producer Benefit</b>					<b>\$19,226,391</b>

Colorado's tertiary market consumer benefits are determined by calculating the cost of unsold tickets in the primary market. The amount of unsold tickets is determined by subtracting a venue's average reported attendance by the average venue capacity. The amount of unsold tickets is then multiplied by the average reported ticket price and the number of annual concerts, calculating the tertiary market producer benefit for each venue. The benefit from each venue is summed to obtain the statewide potential tertiary market producer benefit.

**Table 10: Colorado's Primary Market Consumer Costs**

Venue	Avg. Reported Ticket Price	Avg. Available Tickets Sold	Avg. Venue Capacity	# of 2013 Concerts	Total Venue Ticket Sales
Fillmore Auditorium	\$26.73	75.13%	3,620	44	\$3,198,701
Pepsi Center	\$72.29	87.97%	13,187	18	\$15,094,938
Ellie Caulkins Opera House	\$36.29	66.15%	2,126	29	\$1,480,056
1stBank Center	\$56.35	88.82%	5,442	29	\$7,898,802
Pikes Peak Center	\$35.21	68.90%	1,890	30	\$1,375,524
Red Rocks Ampitheatre	\$46.64	82.12%	9,165	90	\$31,592,388
Dick's Sporting Goods Park	\$69.44	86.65%	28,633	5	\$8,614,204
Boettcher Concert Hall	\$33.80	50.60%	2,698	35	\$1,615,017
Denver Coliseum	\$32.82	77.38%	5,577	2	\$283,268
Temple Hoyne Buell Theatre	\$53.30	67.35%	2,811	12	\$1,210,896
Comfort Dental Ampitheatre	\$34.06	66.76%	11,825	20	\$5,377,645
<b>Total 2013 CO Ticket Costs to Primary Market Consumers</b>					<b>\$77,741,439</b>

Colorado's primary market consumer costs are calculated by multiplying the average reported ticket price, the average available tickets sold, the average venue capacity, and the number of concerts annually. This is different from consumer's willingness-to-pay because it calculates the amount that is actually spent on tickets versus the gross attendance, taking into account the difference in attendance from scalped tickets and tickets purchased only in the primary market.

**Table 11: Colorado's Primary Market Producer Costs**

Venue	Avg. Venue Capacity	Avg. Available Tickets Sold	Avg. Reported Ticket Price	# of 2013 Concerts	Primary Market Producer Cost
Fillmore Auditorium	3,620	75.13%	\$26.73	44	\$1,058,854

Pepsi Center	13,187	87.97%	\$72.29	18	\$2,064,250
Ellie Caulkins Opera House	2,126	66.15%	\$36.29	29	\$757,368
1stBank Center	5,442	88.82%	\$56.35	29	\$994,242
Pikes Peak Center	1,890	68.90%	\$35.21	30	\$620,883
Red Rocks Ampitheatre	9,165	82.12%	\$46.64	90	\$6,878,616
Dick's Sporting Goods Park	28,633	86.65%	\$69.44	5	\$1,327,174
Boettcher Concert Hall	2,698	50.60%	\$33.80	35	\$1,576,717
Denver Coliseum	5,577	77.38%	\$32.82	2	\$82,806
Temple Hoyne Buell Theatre	2,811	67.35%	\$53.30	12	\$587,019
Comfort Dental Ampitheatre	11,825	66.76%	\$34.06	20	\$2,677,545
<b>Total CO 2013 Market Producer Cost</b>					<b>\$18,625,474</b>

Colorado's primary market producer cost is derived from the lost revenue of unsold tickets. The amount of unsold tickets is calculated by subtracting the amount of tickets that are sold from the total venue capacity. The amount of tickets sold is calculated by multiplying the percentage of tickets sold with the venue's capacity. The amount of unsold tickets is then multiplied by the venue's average reported ticket price and the number of annual concerts to create the revenue lost by each venue in unsold tickets. The sum of all of these amounts from the eligible venues in the state calculates the total amount of lost revenue statewide.

## Appendix B – Policy Option 2: Limit Purchase Amount - Florida Model

**Table 12: Florida's Primary Market Consumer Benefits**

Venue	Avg. Reported Ticket Price	Avg. Reported Attendance	# of 2013 Concerts	Primary Market Consumer Benefits
Seminole Hard Rock Live Arena	\$82.69	4,719	29	\$11,316,209
Hard Rock Live (Orlando)	\$32.48	1,963	35	\$2,231,538
American Airlines Arena	\$80.02	9,564	18	\$13,775,603
BB&T Center	\$70.60	10,895	18	\$13,845,366
Peabody Auditorium	\$43.75	1,597	29	\$2,026,194
Bob Carr Performing Arts Center	\$50.20	1,510	12	\$909,624
Kravis Center	\$52.59	1,690	30	\$2,666,313
Florida Theater	\$41.21	1,223	30	\$1,511,995
Van Wezel Performing Arts Hall	\$86.52	9,898	18	\$15,414,749
Tampa Bay Times Forum	\$57.54	10,093	90	\$52,267,610
Amway Center	\$57.58	8,327	20	\$9,589,373
<b>Total FL Primary Market Consumer Benefits</b>				<b>\$125,554,575</b>

The same method explained after Table 6 for Colorado's primary market consumer benefits was used to calculate Florida's primary market consumer benefits.

**Table 13: Florida's Tertiary Market Consumer Benefit**

Venue	Date Data Collected	Lowest Face Price	Highest Face Price	WTP over Face Avg.	WTP Sum
Seminole Hard Rock Live Arena	1mo: 11/28/13	\$59.25	\$96.60	\$19.42	\$388.38
	1wk: 12/21/13			\$83.33	\$1,666.67
	1dy: 12/27/13			\$21.23	\$424.50
Hard Rock Live (Orlando)	1mo: 11/29/13	\$49.70	\$111.65	\$25.85	\$517.08
	1wk: 12/22/13			\$15.08	\$301.65
	1dy: 12/28/13			\$43.24	\$864.70
Van Wezel Performing Arts Hall	1mo: 12/19/13	\$62.50	\$87.50	\$16.33	\$326.60
	1wk: 01/12/14			\$16.64	\$332.82
	1dy: 01/18/14			\$5.87	\$117.30
American Airlines Arena	1mo: 11/30/13	\$71.00	\$197.35	\$41.92	\$838.48
	1wk: 12/24/13			\$90.02	\$1,800.35
	1dy: 12/30/13			\$177.87	\$3,557.48
Hard Rock Live (Orlando)	1mo: 11/30/13	\$66.85	\$188.40	\$16.83	\$336.61
	1wk: 12/24/13			\$32.08	\$641.52
	1dy: 12/20/13			\$10.25	\$204.94
BB&T Center	1mo: 12/02/13	\$46.00	\$170.25	\$83.79	\$1,675.77
	1wk: 12/26/13			\$211.12	\$4,222.38
	1dy: 01/01/14			\$301.50	\$6,029.93
Peabody Auditorium	1mo: 12/03/13	\$46.80	\$67.30	\$13.67	\$273.34
	1wk: 12/27/13			\$35.94	\$718.77
	1dy: 01/02/14			\$0.00	\$0.00
Bob Carr Performing Arts Center	1mo: 12/03/13	\$47.50	\$83.25	\$8.75	\$174.93
	1wk: 12/27/13			\$29.69	\$593.84
	1dy: 01/02/14			\$17.95	\$358.97
Kravis Center	1mo: 12/04/13	\$33.50	\$117.75	\$30.95	\$618.98
	1wk: 12/28/13			\$45.17	\$903.32
	1dy: 01/03/14			\$17.33	\$346.55
Kravis Center	1mo: 12/05/13	\$35.00	\$117.75	\$21.67	\$433.50
	1wk: 12/29/13			\$43.94	\$878.77
	1dy: 01/04/14			\$0.00	\$0.00
BB&T Center	1mo: 12/07/13	\$57.00	\$142.75	\$17.33	\$346.57
	1wk: 12/31/13			\$152.87	\$3,057.47
	1dy: 01/06/14			\$87.62	\$1,752.49
Florida Theatre	1mo: 12/11/13	\$49.50	\$87.10	\$13.33	\$266.60
	1wk: 01/04/14			\$35.34	\$706.72
	1dy: 01/10/14			\$0.00	\$0.00
BB&T Center	1mo: 12/11/13	\$57.00	\$142.75	\$69.42	\$1,388.44
	1wk: 01/04/14			\$117.63	\$2,352.54





	<b>Total FL 2013 Primary Market Producer Benefit</b>	<b>\$124,810,577</b>

The same method explained after Table 8 for Colorado's primary market producer benefits was used to calculate Florida's primary market producer benefits.

**Table 15: Florida's Tertiary Market Producer Benefits**

Venue	Avg. Reported Ticket Price	Avg. Reported Attendance	Avg. Venue Capacity	# of 2013 Concerts	Potential Tertiary Producer Benefit
Seminole Hard Rock Live Arena	\$82.69	4,719	4,731	29	\$28,776
Hard Rock Live (Orlando)	\$32.48	1,963	2,629	35	\$757,109
American Airlines Arena	\$80.02	9,564	10,598	18	\$1,489,332
BB&T Center	\$70.60	10,895	12,640	18	\$2,217,546
Peabody Auditorium	\$43.75	1,597	2,145	29	\$695,275
Bob Carr Performing Arts Center	\$50.20	1,510	2,304	12	\$478,306
Kravis Center	\$52.59	1,690	1,952	30	\$413,357
Florida Theater	\$41.21	1,223	1,771	30	\$677,492
Van Wezel Performing Arts Hall	\$86.52	9,898	10,739	18	\$1,309,740
Tampa Bay Times Forum	\$57.54	10,093	12,300	90	\$11,429,170
Amway Center	\$57.58	8,327	10,874	20	\$2,933,125
			<b>Total 2013 FL Tertiary Market Producer Benefit</b>		<b>\$22,429,229</b>

The same method explained after Table 9 for Colorado's tertiary market producer benefits was used to calculate Florida's tertiary market producer benefits.

**Table 16: Florida's Primary Market Consumer Costs**

Venue	Avg. Reported Ticket Price	Avg. Available Tickets Sold	Avg. Venue Capacity	# of 2013 Concerts	Total Venue Ticket Sales
Seminole Hard Rock Live Arena	\$82.69	99.78%	4,731	29	\$11,320,026
Hard Rock Live (Orlando)	\$32.48	74.63%	2,629	35	\$2,230,427
American Airlines Arena	\$80.02	88.92%	10,598	18	\$13,573,580
BB&T Center	\$70.60	86.14%	12,640	18	\$13,836,592
Peabody Auditorium	\$43.75	76.65%	2,145	29	\$2,086,006
Bob Carr Performing Arts Center	\$50.20	65.95%	2,304	12	\$915,340
Kravis Center	\$52.59	86.86%	1,952	30	\$2,675,002
Florida Theater	\$41.21	69.25%	1,771	30	\$1,516,220
Van Wezel Performing Arts Hall	\$86.52	90.10%	10,739	18	\$15,068,765
Tampa Bay Times Forum	\$57.54	81.50%	12,300	90	\$51,912,876
Amway Center	\$57.58	76.67%	10,874	20	\$9,601,000
			<b>Total 2013 FL Ticket Costs to Primary Market Consumers</b>		<b>\$124,735,833</b>

The same method explained after Table 10 for Colorado's primary market consumer costs was used to calculate Florida's primary market consumer costs.

**Table 17: Florida's Primary Market Producer Costs**

Venue	Avg. Venue Capacity	Avg. Available Tickets Sold	Avg. Reported Ticket Price	# of 2013 Concerts	Primary Market Producer Cost
Seminole Hard Rock Live Arena	4,731	99.78%	\$82.69	29	\$24,959
Hard Rock Live (Orlando)	2,629	74.63%	\$32.48	35	\$758,220
American Airlines Arena	10,598	88.92%	\$80.02	18	\$1,691,355
BB&T Center	12,640	86.14%	\$70.60	18	\$2,226,320
Peabody Auditorium	2,145	76.65%	\$43.75	29	\$635,463
Bob Carr Performing Arts Center	2,304	65.95%	\$50.20	12	\$472,590
Kravis Center	1,952	86.86%	\$52.59	30	\$404,669
Florida Theater	1,771	69.25%	\$41.21	30	\$673,267
Van Wezel Performing Arts Hall	10,739	90.10%	\$86.52	18	\$1,655,724
Tampa Bay Times Forum	12,300	81.50%	\$57.54	90	\$11,783,904
Amway Center	10,874	76.67%	\$57.58	20	\$2,921,499
			<b>Total FL 2013 Market Producer Cost</b>		<b>\$23,247,970</b>

The same method explained after Table 11 for Colorado's primary market producer costs was used to calculate Florida's primary market producer costs.

### Appendix C – Policy Option 3: Limit Resale Price - New York Model

**Table 18: New York's Primary Market Consumer Benefits**

Venue	Avg. Reported Ticket Price	Avg. Reported Attendance	# of 2013 Concerts	Primary Market Consumer Benefits
Barclays Center	\$104.57	12,286	18	\$23,125,446
Madison Square Garden	\$84.68	13,967	18	\$21,289,060
The Palace Theatre (Albany)	\$40.31	2,079	12	\$1,005,654
Beacon Theatre	\$58.75	2,522	44	\$6,519,370
Nassau Coliseum	\$63.99	10,617	18	\$12,228,873
The Theater at Madison Square Garden	\$60.66	4,516	29	\$7,944,276
Carnegie Hall	\$58.00	2,461	12	\$1,712,856
NYCB Theatre at Westbury	\$47.63	1,620	35	\$2,700,621
		<b>Total NY Primary Market Consumer Benefits</b>		<b>\$76,526,157</b>

The same method explained after Table 6 for Colorado's primary market consumer benefits was used to calculate New York's primary market consumer benefits.

**Table 19: New York's Tertiary Market Consumer Benefit**

Venue	Date Data Collected	Lowest Face Price	Highest Face Price	WTP over Face Avg.	WTP Sum
Barclays Center	1mo: 11/26/13	\$49.90	\$148.95	\$42.49	\$849.70
	1wk: 12/19/13			\$67.46	\$1,349.24
	1dy: 12/25/13			\$157.59	\$3,151.84
Madison Square Garden	1mo: 11/28/13	\$80.95	\$80.95	\$20.82	\$416.41
	1wk: 12/21/13			\$80.48	\$1,609.62
	1dy: 12/27/13			\$102.54	\$2,050.77
Madison Square Garden	1mo: 11/29/13	\$80.95	\$80.95	\$40.87	\$817.46
	1wk: 12/22/13			\$75.73	\$1,514.69
	1dy: 12/28/13			\$89.72	\$1,794.49
The Palace Theatre (Albany)	1mo: 11/30/13	\$48.05	\$48.05	\$19.97	\$399.37
	1wk: 12/23/13			\$45.78	\$915.60
	1dy: 12/29/13			\$11.36	\$227.12
Madison Square Garden	1mo: 11/30/13	\$80.95	\$80.95	\$35.85	\$716.99
	1wk: 12/23/13			\$82.53	\$1,650.51
	1dy: 12/29/13			\$104.82	\$2,096.36
The Palace Theatre (Albany)	1mo: 11/30/13	\$52.80	\$63.95	\$16.52	\$330.33
	1wk: 12/24/13			\$16.49	\$329.82
	1dy: 12/30/13			\$4.01	\$80.19
Madison Square Garden	1mo: 11/30/13	\$92.20	\$92.20	\$94.17	\$1,883.39
	1wk: 12/24/13			\$126.24	\$2,524.73
	1dy: 12/30/13			\$174.98	\$3,499.50
Beacon Theatre	1mo: 11/30/13	\$80.95	\$107.05	\$33.59	\$671.77
	1wk: 12/24/13			\$76.52	\$1,530.47
	1dy: 12/30/13			\$78.11	\$1,562.24
Nassau Coliseum	1mo: 11/30/13	\$79.15	\$222.10	\$60.72	\$1,214.34
	1wk: 12/24/13			\$32.65	\$653.03
	1dy: 12/30/13			\$57.16	\$1,143.16
Barclays Center	1mo: 11/30/13	\$81.00	\$239.00	\$174.93	\$3,498.63
	1wk: 12/24/13			\$244.57	\$4,891.42
	1dy: 12/30/13			\$311.90	\$6,237.94
The Theater at Madison Square Garden	1mo: 11/30/13	\$85.05	\$85.05	\$35.30	\$706.05
	1wk: 12/24/13			\$47.59	\$951.72
	1dy: 12/30/13			\$51.37	\$1,027.36
Carnegie Hall	1mo: 12/06/13	\$50.00	\$400.00	\$341.87	\$6,837.39
	1wk: 12/30/13			\$317.57	\$6,351.49
	1dy: 01/05/14			\$242.61	\$4,852.19
Carnegie Hall	1mo: 12/07/13	\$50.00	\$400.00	\$387.97	\$7,759.40
	1wk: 12/31/13			\$385.54	\$7,710.80

	1dy: 01/06/14			\$418.49	\$8,369.89
Carnegie Hall	1mo: 12/09/13	\$50.00	\$400.00	\$282.32	\$5,646.31
	1wk: 01/02/13			\$490.30	\$9,805.96
	1dy: 01/08/13			\$1,287.14	\$25,742.76
Carnegie Hall	1mo: 12/10/13	\$50.00	\$400.00	\$266.43	\$5,328.69
	1wk: 01/03/13			\$309.77	\$6,195.30
	1dy: 01/09/13			\$1,436.39	\$28,727.85
NYCB Theatre at Westbury	1mo: 12/11/13	\$52.00	\$52.00	\$65.37	\$1,307.31
	1wk: 01/04/14			\$45.63	\$912.61
	1dy: 01/10/14			\$71.03	\$1,420.64
NYCB Theatre at Westbury	1mo: 12/12/13	\$52.00	\$62.50	\$30.51	\$610.15
	1wk: 01/05/14			\$59.34	\$1,186.71
	1dy: 01/11/14			\$3.25	\$64.92
Barclays Center	1mo: 12/12/13	\$40.75	\$200.45	\$103.61	\$2,072.24
	1wk: 01/05/14			\$237.18	\$4,743.58
	1dy: 01/11/14			\$228.39	\$4,567.83
Barclays Center	1mo: 12/13/14	\$40.75	\$200.45	\$126.14	\$2,522.76
	1wk: 01/06/14			\$53.92	\$1,078.31
	1dy: 01/12/14			\$119.32	\$2,386.47
Beacon Theatre	1mo: 12/17/13	\$43.00	\$63.55	\$17.53	\$350.66
	1wk: 01/10/14			\$43.99	\$879.80
	1dy: 01/16/14			\$21.31	\$426.13
			<b>Total NY Tertiary Market Consumer Benefit</b>		<b>\$200,154.40</b>

The same method explained after Table 7 for Colorado's tertiary market consumer benefit was used to calculate New York's tertiary market consumer benefit.

**Table 20: New York's Primary Market Producer Benefit**

Venue	Avg. Reported Concert Gross	# of 2013 Concerts	Projected CO 2013 Revenue
Barclays Center	\$1,187,560	18	\$21,376,080
Madison Square Garden	\$1,093,680	18	\$19,686,240
The Palace Theatre (Albany)	\$86,856	12	\$1,042,272
Beacon Theatre	\$142,374	44	\$6,264,456
Nassau Coliseum	\$656,859	18	\$11,823,462
The Theater at Madison Square Garden	\$283,008	29	\$8,207,232
Carnegie Hall	\$137,533	12	\$1,650,396
NYCB Theatre at Westbury	\$73,620	35	\$2,576,700
	<b>Total NY 2013 Primary Market Producer Benefit</b>		<b>\$72,626,838</b>

The same method explained after Table 8 for Colorado's primary market producer benefits was used to calculate New York's primary market producer benefits.

**Table 21: New York's Tertiary Market Producer Benefits**

Venue	Avg. Reported Ticket Price	Avg. Reported Attendance	Avg. Venue Capacity	# of 2013 Concerts	Potential Tertiary Producer Benefit
Barclays Center	\$104.57	12,286	12,922	18	\$1,197,117
Madison Square Garden	\$84.68	13,967	14,781	18	\$1,240,731
The Palace Theatre (Albany)	\$40.31	2,079	2,668	12	\$284,911
Beacon Theatre	\$58.75	2,522	2,832	44	\$801,350
Nassau Coliseum	\$63.99	10,617	12,798	18	\$2,512,119
The Theater at Madison Square Garden	\$60.66	4,516	5,210	29	\$1,220,843
Carnegie Hall	\$58.00	2,461	2,718	12	\$178,872
NYCB Theatre at Westbury	\$47.63	1,620	2,271	35	\$1,085,250
			<b>Total 2013 NY Tertiary Market Producer Benefit</b>		<b>\$8,521,194</b>

The same method explained after Table 9 for Colorado's tertiary market producer benefits was used to calculate New York's tertiary market producer benefits.

**Table 22: New York's Primary Market Consumer Costs**

Venue	Avg. Reported Ticket Price	Avg. Available Tickets Sold	Avg. Venue Capacity	# of 2013 Concerts	Total Venue Ticket Sales
Barclays Center	\$104.57	96.11%	12,922	18	\$23,376,416
Madison Square Garden	\$84.68	95.50%	14,781	18	\$21,515,951
The Palace Theatre (Albany)	\$40.31	78.05%	2,668	12	\$1,007,286
Beacon Theatre	\$58.75	90.04%	2,832	44	\$6,591,576
Nassau Coliseum	\$63.99	82.65%	12,798	18	\$12,183,430
The Theater at Madison Square Garden	\$60.66	86.81%	5,210	29	\$7,956,240
Carnegie Hall	\$58.00	90.70%	2,718	12	\$1,715,797
NYCB Theatre at Westbury	\$47.63	72.64%	2,271	35	\$2,750,056
			<b>Total 2013 NY Ticket Costs to Primary Market Consumers</b>		<b>\$77,096,753</b>

The same method explained after Table 10 for Colorado's primary market consumer costs was used to calculate New York's primary market consumer costs.

**Table 23: New York's Primary Market Producer Costs**

Venue	Avg. Venue Capacity	Avg. Available Tickets Sold	Avg. Reported Ticket Price	# of 2013 Concerts	Primary Market Producer Cost
Barclays Center	12,922	96.11%	\$104.57	18	\$946,148
Madison Square Garden	14,781	95.50%	\$84.68	18	\$1,013,841
The Palace Theatre (Albany)	2,668	78.05%	\$40.31	12	\$283,279
Beacon Theatre	2,832	90.04%	\$58.75	44	\$729,144
Nassau Coliseum	12,798	82.65%	\$63.99	18	\$2,557,562

The Theater at Madison Square Garden	5,210	86.81%	\$60.66	29	\$1,208,879
Carnegie Hall	2,718	90.70%	\$58.00	12	\$175,931
NYCB Theatre at Westbury	2,271	72.64%	\$47.63	35	\$1,035,814
			<b>Total NY 2013 Market Producer Cost</b>		<b>\$7,950,597</b>

The same method explained after Table 10 for Colorado's primary market producer costs was used to calculate New York's primary market producer costs.

## Appendix D – Policy Option 4: Regulate Resale Criteria - Connecticut Model

**Table 24: Connecticut's Primary Market Consumer Benefits**

Venue	Avg. Reported Ticket Price	Avg. Reported Attendance	# of 2013 Concerts	Primary Market Consumer Benefits
The Bushnell	\$41.89	1,936	44	\$3,568,358
Mohegan Sun Arena	\$62.42	5,705	18	\$6,409,910
MGM Grand at Foxwoods	\$60.18	3,500	90	\$18,956,700
Webster Bank Arena at Harbor Yard	\$60.24	6,385	20	\$7,692,648
Shubert Theater	\$56.34	1,592	12	\$1,076,319
The Dome at Oakdale Theatre	\$37.83	3,332	29	\$3,655,437
		<b>Total CT Primary Market Consumer Benefits</b>		<b>\$41,359,372</b>

The same method explained after Table 6 for Colorado's primary market consumer benefits was used to calculate Connecticut's primary market consumer benefits.

**Table 25: Connecticut's Tertiary Market Consumer Benefit**

Venue	Date Data Collected	Lowest Face Price	Highest Face Price	WTP over Face Avg.	WTP Sum
The Bushnell	1mo: 12/11/13	\$49.50	\$49.50	\$78.22	\$1,564.33
	1wk: 01/04/14			\$13.54	\$270.76
	1dy: 01/10/14			\$8.31	\$166.12
Mohegan Sun Arena	1mo: 12/17/13	\$136.45	\$167.10	\$17.26	\$345.27
	1wk: 01/10/14			\$147.20	\$2,943.90
	1dy: 01/16/14			\$132.08	\$2,641.63
MGM Grand at Foxwoods	1mo: 12/18/13	\$66.65	\$66.65	\$46.01	\$920.22
	1wk: 01/11/14			\$47.09	\$941.72
	1dy: 01/17/14			\$0.00	\$0.00
Mohegan Sun Arena	1mo: 12/19/13	\$34.10	\$49.40	\$9.54	\$190.82
	1wk: 01/12/14			\$29.66	\$593.24
	1dy: 01/18/14			\$9.71	\$194.16
MGM Grand at Foxwoods	1mo: 01/01/14	\$44.10	\$66.65	\$36.13	\$722.62
	1wk: 01/25/14			\$48.48	\$969.53
	1dy: 01/31/14			\$49.92	\$998.31

The Bushnell	1mo: 01/09/14	\$39.50	\$39.50	\$92.61	\$1,852.24
	1wk: 02/02/14			\$76.59	\$1,531.76
	1dy: 02/08/14			\$63.02	\$1,260.42
Mohegan Sun Arena	1mo: 01/13/14	\$91.75	\$143.60	\$38.34	\$766.86
	1wk: 02/06/14			\$117.41	\$2,348.22
	1dy: 02/12/14			\$123.55	\$2,470.93
Mohegan Sun Arena	1mo: 01/14/14	\$80.80	\$101.20	\$19.06	\$381.15
	1wk: 02/07/14			\$69.62	\$1,392.38
	1dy: 02/13/14			\$79.12	\$1,582.45
Mohegan Sun Arena	1mo: 01/15/14	\$71.60	\$92.00	\$67.00	\$1,340.07
	1wk: 02/08/14			\$87.73	\$1,754.51
	1dy: 02/14/14			\$80.80	\$1,616.00
Mohegan Sun Arena	1mo: 01/16/14	\$116.25	\$142.85	\$19.28	\$385.59
	1wk: 02/09/14			\$83.30	\$1,665.99
	1dy: 02/15/14			\$0.00	\$0.00
Mohegan Sun Arena	1mo: 02/01/14	\$64.95	\$64.95	\$62.92	\$1,258.33
	1wk: 02/22/14			\$91.51	\$1,830.10
	1dy: 02/28/14			\$0.00	\$0.00
MGM Grand at Foxwoods	1mo: 02/01/14	\$76.90	\$92.25	\$18.86	\$377.22
	1wk: 02/22/14			\$56.17	\$1,123.30
	1dy: 02/28/14			\$0.00	\$0.00
Webster Bank Arena at Harbor Yard	1mo: 02/18/14	\$40.35	\$81.55	\$10.13	\$202.69
	1wk: 03/11/14			\$13.26	\$265.11
	1dy: 03/17/14			\$20.34	\$406.81
Shubert Theater	1mo: 12/22/13	\$65.95	\$76.55	\$12.56	\$251.10
	1wk: 01/15/14			\$35.77	\$715.34
	1dy: 01/21/14			\$26.34	\$526.82
The Bushnell	1mo: 01/08/14	\$59.00	\$91.00	\$45.58	\$911.57
	1wk: 02/01/14			\$38.64	\$772.74
	1dy: 02/07/14			\$21.70	\$433.95
The Bushnell	1mo: 01/14/14	\$42.50	\$64.50	\$27.00	\$540.02
	1wk: 02/07/14			\$21.57	\$431.49
	1dy: 02/13/14			\$0.00	\$0.00
MGM Grand at Foxwoods	1mo: 01/14/14	\$87.15	\$109.70	\$28.43	\$568.66
	1wk: 02/07/14			\$58.92	\$1,178.45
	1dy: 02/13/14			\$75.50	\$1,510.01
The Dome at Oakdale Theatre	1mo: 01/15/14	\$37.50	\$92.00	\$0.00	\$0.00
	1wk: 02/08/14			\$51.89	\$1,037.86
	1dy: 02/14/14			\$15.04	\$300.73
The Dome at Oakdale Theatre	1mo: 01/15/14	\$37.50	\$92.00	\$0.00	\$0.00



	1wk: 02/08/14			\$46.52	\$930.31
	1dy: 02/14/14			\$8.86	\$177.24
The Bushnell	1mo: 01/15/14	\$62.00	\$96.00	\$9.83	\$196.63
	1wk: 02/08/14			\$67.13	\$1,342.67
	1dy: 02/14/14			\$3.53	\$70.60
<b>Total CT Tertiary Market Consumer Benefit</b>					<b>\$51,170.96</b>

The same method explained after Table 7 for Colorado's tertiary market consumer benefit was used to calculate Connecticut's tertiary market consumer benefit.

**Table 26: Connecticut's Primary Market Producer Benefit**

Venue	Avg. Reported Concert Gross	# of 2013 Concerts	Projected CO 2013 Revenue
The Bushnell	\$82,843	44	\$3,645,092
Mohegan Sun Arena	\$341,314	18	\$6,143,652
MGM Grand at Foxwoods	\$211,098	90	\$18,998,820
Webster Bank Arena at Harbor Yard	\$377,883	20	\$7,557,660
Shubert Theater	\$89,679	12	\$1,076,148
The Dome at Oakdale Theatre	\$126,079	29	\$3,656,291
<b>Total CT 2013 Primary Market Producer Benefit</b>			<b>\$41,077,663</b>

The same method explained after Table 8 for Colorado's primary market producer benefits was used to calculate Connecticut's primary market producer benefits.

**Table 27: Connecticut's Tertiary Market Producer Benefits**

Venue	Avg. Reported Ticket Price	Avg. Reported Attendance	Avg. Venue Capacity	# of 2013 Concerts	Potential Tertiary Producer Benefit
The Bushnell	\$41.89	1,936	2,705	44	\$1,417,390
Mohegan Sun Arena	\$62.42	5,705	6,439	18	\$824,693
MGM Grand at Foxwoods	\$60.18	3,500	3,737	90	\$1,283,639
Webster Bank Arena at Harbor Yard	\$60.24	6,385	7,674	20	\$1,552,987
Shubert Theater	\$56.34	1,592	2,794	12	\$812,648
The Dome at Oakdale Theatre	\$37.83	3,332	4,084	29	\$824,997
<b>Total 2013 CT Tertiary Market Producer Benefit</b>					<b>\$6,716,354</b>

The same method explained after Table 9 for Colorado's tertiary market producer benefits was used to calculate Connecticut's tertiary market producer benefits.

**Table 28: Connecticut's Primary Market Consumer Costs**

Venue	Avg. Reported Ticket Price	Avg. Available Tickets Sold	Avg. Venue Capacity	# of 2013 Concerts	Total Venue Ticket Sales
The Bushnell	\$41.89	71.23%	2,705	44	\$3,551,348

Mohegan Sun Arena	\$62.42	88.62%	6,439	18	\$6,411,305
MGM Grand at Foxwoods	\$60.18	93.77%	3,737	90	\$18,979,366
Webster Bank Arena at Harbor Yard	\$60.24	83.12%	7,674	20	\$7,684,972
Shubert Theater	\$56.34	74.49%	2,794	12	\$1,407,092
The Dome at Oakdale Theatre	\$37.83	80.86%	4,084	29	\$3,622,879
			<b>Total 2013 CT Ticket Costs to Primary Market Consumers</b>		<b>\$41,656,962</b>

The same method explained after Table 10 for Colorado's primary market consumer costs was used to calculate Connecticut's primary market consumer costs.

**Table 29: Connecticut's Primary Market Producer Costs**

Venue	Avg. Venue Capacity	Avg. Available Tickets Sold	Avg. Reported Ticket Price	# of 2013 Concerts	Primary Market Producer Cost
The Bushnell	2,705	71.23%	\$41.89	44	\$1,434,400
Mohegan Sun Arena	6,439	88.62%	\$62.42	18	\$823,298
MGM Grand at Foxwoods	3,737	93.77%	\$60.18	90	\$1,260,973
Webster Bank Arena at Harbor Yard	7,674	83.12%	\$60.24	20	\$1,560,663
Shubert Theater	2,794	74.49%	\$56.34	12	\$481,876
The Dome at Oakdale Theatre	4,084	80.86%	\$37.83	29	\$857,555
			<b>Total CT 2013 Market Producer Cost</b>		<b>\$6,418,764</b>

The same method explained after Table 11 for Colorado's primary market producer costs was used to calculate Connecticut's primary market producer costs.

## Appendix E – Law Enforcement, Legislative Calculations, and Sensitivity Analysis

**Table 30: Calculation of Law Enforcement Policy Cost**

Venue	# of 2013 Concerts	Off-Duty Police Rate	Avg. Venue Capacity	Off-Duty Police Required	Avg. Concert Duration	Annual Venue Off-Duty Police Cost
Fillmore Auditorium	44	\$50	3,620	2.41	6	\$31,856
Pepsi Center	18	\$50	13,187	8.79	6	\$47,473
Ellie Caulkins Opera House	29	\$50	2,126	1.42	6	\$12,331
1stBank Center	29	\$50	5,442	3.63	6	\$31,564
Pikes Peak Center	30	\$50	1,890	1.26	6	\$11,340
Red Rocks Ampitheatre	90	\$50	9,165	6.11	6	\$164,970
Dick's Sporting Goods Park	5	\$50	28,633	19.09	6	\$28,633
Boettcher Concert Hall	35	\$50	2,698	1.80	6	\$18,886
Denver Coliseum	2	\$50	5,577	3.72	6	\$2,231
Temple Hoyne Buell Theatre	12	\$50	2,811	1.87	6	\$6,746
Comfort Dental Ampitheatre	20	\$50	11,825	7.88	6	\$47,300

				<b>Total Off-Duty Cost</b>	<b>\$403,329.80</b>
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Although venues provide their own security detail who monitor for illegal scalping activity, additional off-duty law enforcement is also typically hired by concert venues in Colorado at a standard rate of \$50 per hour.<sup>108</sup> Though not the only reason for hiring off-duty police, the addition of scalping laws does make it beneficial for venues to hire police for the possibility that nearby street scalpers are violating the law. The venue costs for additional law enforcement is calculated by multiplying the \$50 hourly rate by the average 6 hours per concert by the number of officers required by the total number of targeted events that occur in Colorado each year. The 6-hour average is calculated by the average amount of time a venue's box office is open on the day of an event.<sup>109</sup> Even though off-duty police do stay for some time after a concert ends and the box office is closed, the enforcement of scalping laws is no longer a priority so the time after an event is not calculated into off-duty police costs. The number of police required is calculated by assuming that one officer is needed per 1,500 potential attendees based on the Ogden Theater requiring one officer with their capacity of 1,300.<sup>110</sup> The pay for off-duty police is a benefit for the status quo policy because the additional cost does not have to be attributed to ticket scalping regulation whereas it is a cost for the alternatives because it does have to be attributed to ticket scalping regulations.

**Table 31: Calculation of Legislative Cost**

Fiscal Year	Annual Legislative Cost	Total Number of Bills	Avg. Cost of Bill
FY 2013-14	\$40,399,019	681	\$59,323.08
FY 2012-13	\$37,046,125	622	\$59,559.69
FY 2011-12	\$35,973,325	679	\$52,979.86
FY 2010-11	\$35,999,593	735	\$48,979.04
		<b>4-year Avg. Cost of Bill</b>	<b>\$55,210.42</b>

The total cost to add an additional bill to Colorado's state legislature docket is calculated by taking the total amount of money spent for the state legislature to function in a year and dividing that number by the total amount of bills introduced in a year. This calculates the cost of one bill presented to the legislature in a given year. The Colorado Joint Budget Committee's annual Appropriations Report summarizes the Legislature's Total Funds spending each year.<sup>111</sup> This yearly total spending can be divided by the total number of bills the legislature hears annually<sup>112</sup> to calculate the average legislative cost of a bill. Table 29 estimates the average cost of a bill for the past four fiscal years and averages their costs. Total legislative costs were configured for this analysis by averaging the costs for bills from the previous four years that data was available, from 2010 to 2013.<sup>113</sup> This averaging process is done to generate a cost that is not reliant on potentially circumstantial one-year costs.

For the status quo, the cost of a single bill is counted as a benefit because no action has to be taken in the legislature and the inaction saves otherwise necessary legislative costs. For the alternative policies, this amount is counted as a cost because it requires action from the legislature.

<sup>108</sup> Turf.

<sup>109</sup> Golaszewski.

<sup>110</sup> Turf.

<sup>111</sup> "State of Colorado..."

<sup>112</sup> "All Bills by Bill #."

<sup>113</sup> "Comprehensive Annual Fiscal..."

The legislature gets paid even if they only pass one bill each year, the bill to pay themselves, so it is not entirely necessary to calculate legislative costs as they will be constant regardless of legislative action. However, opportunity costs amount to the time that a substitute bill could have been researched and voted as the Colorado Legislature is time limited to 120 days each year. Therefore, this is a necessary calculation when comparing the need to pass a new bill compared to no necessity to pass a bill.

**Table 32: Sensitivity Analysis Event Number Configuration**

State	Venue	# of 2013 Concerts	Total CO # / Total State #	Ratio * # of Concerts
Colorado	Fillmore Auditorium	44		44
	Pepsi Center	18		18
	Ellie Caulkins Opera House	29		29
	1stBank Center	29		29
	Pikes Peak Center	30		30
	Red Rocks Amphitheatre	90		90
	Dick's Sporting Goods Park	5		5
	Boettcher Concert Hall	35		35
	Denver Coliseum	2		2
	Temple Hoyne Buell Theatre	12		12
	Comfort Dental Amphitheatre	20		20
	Totals CO	314	1	314
State	Venue	# of 2013 Concerts	Total CO # / Total State #	Ratio * # of Concerts
Florida	Seminole Hard Rock Live Arena	29		27.68
	Hard Rock Live (Orlando)	35		33.40
	American Airlines Arena	18		17.18
	BB&T Center	18		17.18
	Peabody Auditorium	29		27.68
	Bob Carr Performing Arts Center	12		11.45
	Kravis Center	30		28.63
	Florida Theater	30		28.63
	Van Wezel Performing Arts Hall	18		17.18
	Tampa Bay Times Forum	90		85.90
	Amway Center	20		19.09
	Totals FL	329	0.95	314
State	Venue	# of 2013 Concerts	Total CO # / Total State #	Ratio * # of Concerts
New York	Barclays Center	18		30.39
	Madison Square Garden	18		30.39
	The Palace Theatre (Albany)	12		20.26
	Beacon Theatre	44		74.28
	Nassau Coliseum	18		30.39
	The Theater at Madison Square Garden	29		48.96
	Carnegie Hall	12		20.26

	NYCB Theatre at Westbury	35		59.09
	Total NY	186	1.69	314
<b>State</b>	<b>Venue</b>	<b># of 2013 Concerts</b>	<b>Total CO # / Total State #</b>	<b>Ratio * # of Concerts</b>
<b>Connecticut</b>	The Bushnell	44		64.86
	Mohegan Sun Arena	18		26.54
	MGM Grand at Foxwoods	90		132.68
	Webster Bank Arena at Harbor Yard	20		29.48
	Shubert Theater	12		17.69
	The Dome at Oakdale Theatre	29		42.75
	Total CT	213	1.47	314

The Sensitivity Analysis equalizes the amount of ticketed events in the alternative states and Colorado. The ratio of the total amount of events in Colorado was divided by the total amount of events in each alternative state. That ratio was then compared to the amount of events in each different state to make the overall amount of events equal to Colorado. This comparison relates the policies in the alternative states more accurately to the Colorado market that the policies would potentially be implemented in.

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