

# SOCIOECONOMIC IMPACTS OF CASINO INTRODUCTION TO COLORADO

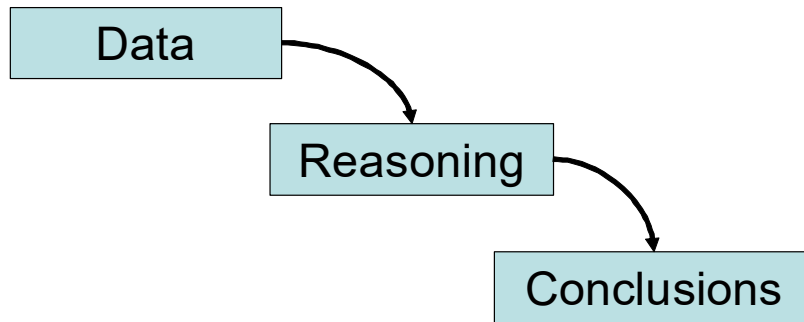
## Summary Report

DOCUMENTED  
EXPENSES, COSTS,  
AND OTHER  
IMPACTS

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## Abstract

In accordance with Colorado Revised Statutes (C.R.S) 44-30-1301, this study provides the Colorado Department of Local Affairs and the Local Government Limited Gaming Advisory Committee with an assessment of what constitutes “documented expenses, costs, and other impacts incurred directly as a result of limited gaming” to Colorado communities and residents in Gilpin, Teller, and their adjacent counties as well as counties that have casinos on Tribal lands in the state of Colorado. The impacts identified in this report are initially derived from a comprehensive literature review of the impacts typically associated with casino introduction. To determine the extent to which these typical impacts also exist in Colorado, 19 studies specific to this state were reviewed and other primary research was conducted. The primary research included a survey of Colorado casino patrons, analysis of economic and fiscal data at the town and county level, economic forecasts using Implan, a review of social impact data at the county level, interviews with public and non-profit officials in communities close to casinos, and a review of past grant applications submitted to the Local Government Limited Gaming Impact Fund. The final part of this report proposes a formulaic approach to rating funding applications based on three fixed criteria: a) the application addresses an impact identified in the present research to be important, relevant, and still having ongoing influence in Colorado; b) the impact is judged to potentially modifiable with public monies; and c) the estimated net cost to a community due to its host/non-host status and casino proximity. The use of additional flexible, non-impact related funding criteria is also encouraged to achieve other objectives.

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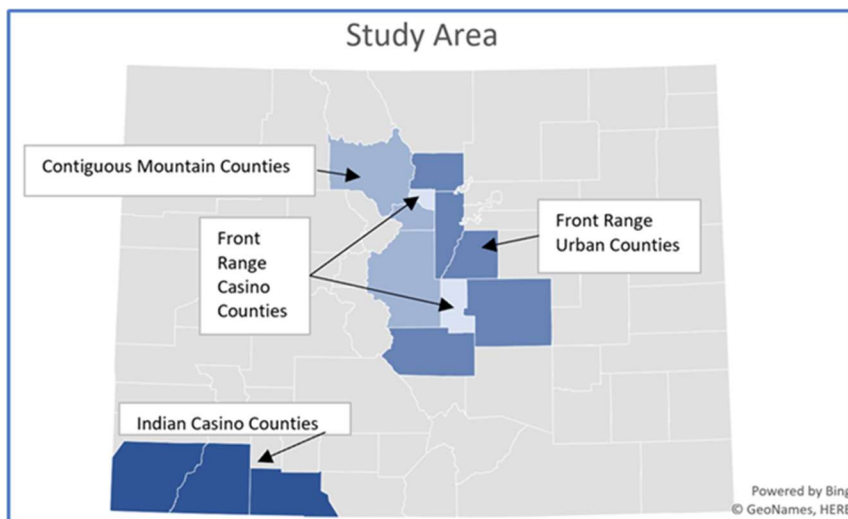
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## Introduction

In accordance with Colorado Revised Statutes (C.R.S) 44-30-1301, this study provides the Colorado Department of Local Affairs (DOLA) and the Local Government Limited Gaming Advisory Committee (Committee) with an assessment of what constitutes “documented expenses, costs, and other impacts incurred directly as a result of limited gaming” to Colorado residents in Gilpin, Teller, and their adjacent counties as well as counties that have casinos with Indian land in the state of Colorado. The study makes recommendations providing guidance to DOLA and the Committee in the form of prioritized impacts and locations most impacted, and how the prioritized impacts and locations can be combined with other more flexible criteria for a comprehensive and documentable application evaluation process when awarding funding to local governments under the enabling legislation and C.R.S.

To assess the “documented expenses, costs, and other impacts incurred directly as a result of limited gaming” research and analysis was pursued of numerous data, information, and knowledge sources. Varying degrees of success resulted from each specific effort in terms of providing consistent and clear documentation of impacts at the community level (counties and towns). Despite some challenges, the impacts resulting from the introduction of casino gambling into Gilpin, Teller, Montezuma, and LaPlata counties are well documented through this study and a comprehensive and auditable evaluation process is provided in the recommendations.

Figure 1: Study Area Counties



The Study Area geography is specifically defined in the enabling legislation. As shown in Figure 1, entities eligible for funding from the Local Government Limited Gaming Impact (LGLGI) fund include the Front Range Casino counties of Gilpin and Teller as well as the eight counties contiguous to these two counties: Boulder, Douglas, El Paso, Fremont, Jefferson (Front Range Urban Counties), and Grand, Clear

Creek, and Park (Contiguous Mountain Counties). In addition, counties that contain Native American tribal lands where limited stakes gaming occurs are also included -- Archuleta, La Plata, and Montezuma. These counties and their home rule (incorporated municipality) communities comprise the Study Area which is the geographic focus of this study.

In considering expenses, costs, and other impacts, the following definitions are used:

**The costs of gaming:** Costs were considered from both a short term current and a long-term historical perspective. The following segments were examined: local governments, local

residents, local gaming industry employees and their families, individual behavior of gaming patrons stemming from gambling addiction and problem gambling, and other visitors that visit the gaming communities and have negative experiences through illegal behavior.

**Expenses of gaming:** Expenses are defined more strictly than costs. For this study, expenses are assumed to be budgetary items within a county, municipal or social service non-profit budget that are necessary to provide direct services related to gaming, or to provide cover part of general overhead expenses as an allocated relative to the total non-gaming related expenses.

**The benefits of gaming:** Benefits include both economic and social positive impacts. These positive impacts may include employment and earnings gains in the communities, local government sales tax revenues, and social benefits to residents employed in the gaming industry, the recreational benefit provided by gambling, as well as other social benefits that occur.

### Socioeconomic Impacts in the Study Area

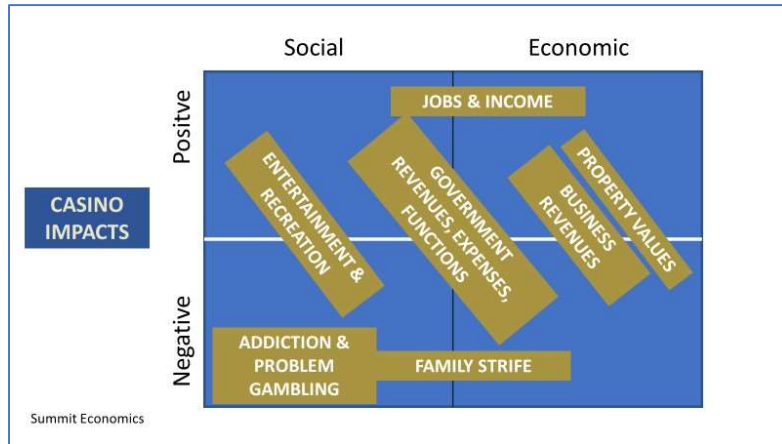
The guiding research for this study was a comprehensive international literature review of socioeconomic impacts related to casino introduction. Dr. Robert Williams of the University of Lethbridge in Alberta, Canada teamed with Summit Economics to conduct and document the review. His efforts yielded 32 separate impacts. These are shown in Table 1 on the following page.

Looking specifically at impact studies for Colorado, Williams describes 19 studies conducted between 1993 and 2014. Most of the 32 impacts listed in Table 1 (following page) are addressed at some level by the Colorado-specific studies; however, there are significant gaps in the Colorado research in terms of coverage of impacts and the quality of the research. Nonetheless it is reasonable to conclude that Colorado generally follows the general international pattern of impacts, but in many cases not to the same degree. The differences are hard to specifically and definitively document on a comparative basis, but the location of Colorado's casinos, along with the demographics of the casinos' labor and patron markets, make the inferences reliable.

Table 1: 32 Socioeconomic Impacts of Casino Introduction

NEGATIVE ECONOMIC IMPACTS	POSITIVE ECONOMIC IMPACTS
<ul style="list-style-type: none"> <li>• <b>Increased government regulatory costs</b> to oversee the casino industry (i.e., administrative costs; enforcement of gaming regulations)</li> <li>• <b>Increased infrastructure costs</b> to service the casino (i.e., road repair; utilities)</li> <li>• <b>Increased service costs</b> to service the casino (i.e., police services, fire services, public transportation)</li> <li>• <b>Decreased number of new businesses and revenue in businesses cannibalized</b> by casino gambling, most typically: charitable gambling (bingo, scratch tickets), horse racing (and associated horse breeding and training); wide range of other possible entertainment industries</li> <li>• <b>Decreases in property values</b> in area proximate to new casino</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Increased government revenue</b> from casino taxes</li> <li>• <b>Enhancement of public services</b> from increased government casino tax revenue</li> <li>• <b>Increased infrastructure value</b> due to the improvements in roads, sewers, utility upgrades associated with the introduction of the casino</li> <li>• <b>Increased number of new businesses and revenue in businesses complementary</b> to the casino, most typically: hotels, restaurants, gas stations, bars, pawn shops, check-cashing stores, bus transportation, Uber/taxi</li> <li>• <b>Increases in average personal income</b> (typically only in impoverished areas that host a successful new casino, like Native reserves)</li> <li>• <b>Increases in property values</b> in area proximate to new casino</li> </ul>
NEGATIVE SOCIAL IMPACTS	POSITIVE SOCIAL IMPACTS
<ul style="list-style-type: none"> <li>• <b>Increased rates of gambling addiction</b>, indices associated with gambling addiction, and the costs of addressing these issues: <ul style="list-style-type: none"> <li>○ Increased rates of <b>personal bankruptcy</b></li> <li>○ Increased rates of <b>divorce, separation, and restraining orders</b></li> <li>○ Increased rates of <b>child neglect and abuse</b></li> <li>○ Increased rates of <b>mental health problems, self-harm, and suicides</b></li> <li>○ Increased rates of <b>crime due to gambling addiction</b></li> <li>○ Decreased <b>work productivity</b></li> <li>○ Increased <b>treatment costs</b> to treat problem gambling</li> <li>○ Increased <b>prevention costs</b> to prevent problem gambling</li> </ul> </li> <li>• <b>Increased rates of crime, policing, incarceration, and probation services facilitated by the presence of a casino</b> (additional alcohol-related crime, money laundering, passing counterfeit, attracting clientele with antisocial tendencies)</li> <li>• <b>Decreased employment</b> in industries cannibalized by casino gambling</li> <li>• <b>Increased traffic and traffic accidents</b></li> <li>• <b>Increased noise</b></li> <li>• <b>Increased socioeconomic inequality</b>, as gambling tends to be regressive</li> <li>• <b>More negative attitudes toward gambling</b> (usually because of the social harms)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Increase in employment</b> associated with the casino and complementary industries</li> <li>• <b>More positive attitudes toward gambling</b> (usually because of the economic benefits)</li> <li>• <b>Increased leisure option</b> that casino gambling provides</li> <li>• <b>Decreased illegal gambling</b></li> <li>• <b>Improved quality of life</b> in communities that are economically rejuvenated due to casino revenue</li> </ul>

Figure 2: Summary of Socioeconomic Impacts of Gambling

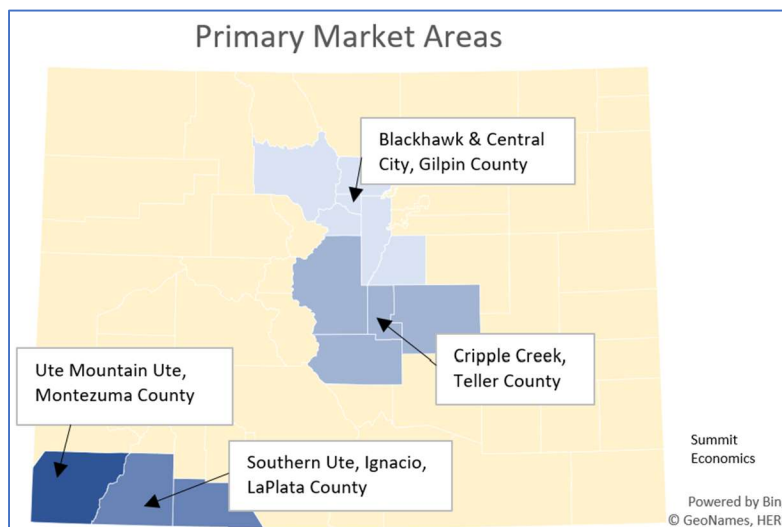


As seen, the 32 impacts generally fit into one of four categories: negative economic impacts, positive economic impacts, negative social impacts, and positive social impacts. About half of the broad impacts can be either positive or negative and impacts related to Government Revenues, Expenses and Functions cross between both economic and social impacts.

The economic impacts are often easier to measure and more quantifiable in monetary terms than the social impacts. However, the lack of quantification does not mean the social impacts are insignificant or less relevant. In some cases, the social impact can be high. For instance, the intergenerational impact of addiction and resulting family strife carry high long-term public cost. These impacts are clear, but difficult to measure, and the quantifiable monetary impacts would not account for the long-term costs associated with households’ diminished quality of life.

The above-identified socioeconomic impacts are mediated by four primary variables; magnitude of the change (i.e., large number of new casinos versus just one); proximity to the casinos (communities closer to the casinos have larger impacts); specific jurisdiction (vulnerability of the population, strength of initiatives to mitigate impacts, how casino revenue is distributed); and time period studied (many impacts dissipate with time).

Figure 3: Colorado Market and Study Areas of Casinos



Adequate access to labor and patron markets is an important long-term determinant of casino success. The primary market areas for each of the casino locations are shown in Figure 3. Only the counties in the study area are included in the map even though the Black Hawk and Central City casinos draw patrons and employees from additional counties in the Denver metro area.

Casino patrons include individuals with gambling problems, which often

coincides with alcohol and drug problems. Problem gamblers would naturally tend to prefer more convenient access to the gaming environment offered by casinos. As a result, they often live closer as determined by travel time to the casinos. The same applies to employment impacts. Living closer to work is generally preferred. However, with both patrons and employees, the desire to live closer must be balanced with other aspects such as housing availability and affordability. As a result, many of the positive and negative impacts resulting from gaming are taken home by patrons and employees regardless of where they live which can typically range up to an hour away from casinos.

Data from the Division of Gaming shows Gilpin County, which is a small county in terms of population, accounts for a lower percent of employment at Gilpin casinos while the large urban county of Jefferson accounts for the largest percentage. This is due to the lack of affordable housing opportunities in Gilpin County and good highway access from Jefferson County to Central City and Black Hawk. It also appears that a large percentage of the employment most likely comes from Denver, Arapahoe, Broomfield, and Adams counties combined.

Black Hawk, Central City, and Cripple Creek were boom mining towns in their heyday. By the 1970s the areas attracted tourists but were showing significant signs of blight and faced the prospect of losing their historic inventory of buildings and infrastructure due to economic stagnation and decline. With the passage of limited gaming in 1990, the casino towns began receiving historic preservation funding from gaming taxes and saw the demand for historic buildings increase dramatically. This resulted in extensive renovation of historical structures which is a unique positive impact found in Colorado. Historic preservation can be included under infrastructure investment along with road expansion and improvements such as the Central City Parkway connecting Central City directly to I-70. Cripple Creek, about an hour from Colorado Springs, also improved highway access in the early 1990s.

The Indian casinos on the Ute Mountain Ute and Southern Ute tribal lands in Montezuma and La Plata Counties respectively, have lower magnitudes of impact than the Front Range casinos due to smaller primary market area populations. Furthermore, there are many competing casinos owned by different Indian tribes throughout northern New Mexico and Arizona. The closest larger community of Durango Colorado (19,000 people) is a half an hour drive to the Sky Ute Lodge and Casino on Southern Ute tribal lands and just over an hour to the Ute Mountain Hotel Casino in Towaoc Colorado. Cortez (population 8,800) is 18 minutes from Towaoc and Farmington New Mexico (population 45,000), with two casinos, is an hour from both the Southern Ute and Ute Mountain Ute casinos.

The dominant lifestyle segments or cultural groups found in the study area are less likely to be associated with problem gaming. This is especially true given the racial composition and higher income households generally found in the primary market area. However, this information is aggregated on a county level and there are certainly smaller groupings within each county that do not match the dominant lifestyle and demographic types.



From a lifestyle perspective, it is notable that the Front Range casinos sit on the fringe of urban and mountain living. The urban culture is diverse with a wide range of incomes except in Douglas and Boulder counties. Entering the mountains west of the urban areas, the culture might be best described as ex-urban, higher income that transitions to a second home lifestyle further west into the mountains. In the case of the Indian casinos, both Ute tribes are on large tribal lands with low population density. The tribal lands extend into Arizona and New Mexico.

Another relevant market segment for the Colorado casinos come from the state’s tourism industry. These respective casino and tourist segments include:

- Gilpin casinos: Denver and Colorado Ski Country
- Teller casinos: Pikes Peak Area
- Montezuma: Mesa Verde and Four Corners
- La Plata: Durango and Pagosa Springs

The tourism impacts are economically positive to both the Colorado and the study area. The casino communities benefits from any tourists coming from more than 50 miles away and both the study area and state benefit from out-of-state tourists who spend money in the casinos and surrounding communities while being less likely to contribute to the social negative impacts related to problem gaming because they live outside the study area and/or state. However, they do bring public service impacts typically associated with tourism. In total we estimate tourism from outside the state to total approximately 15% of total patronage.

## Colorado’s Gaming Statistics

Table 2 summarizes some key statistics from the Colorado Department of Revenue, Division of Gaming. All the data relates to the Front Range casinos only as there are no tax collections from the Indian casinos in La Plata and Montezuma

Table 2: Selected 2018 Statistics of Colorado Casinos

Selected Statistics of Front Range Casino Gaming					
	Teller & Gilpin Total	Gilpin Total	Black Hawk	Central City	Cripple Creek
Adjusted Gross Proceeds (millions)	\$ 828.0	\$ 693.3	\$ 621.4	\$ 71.9	\$ 134.7
5 Year Percent Growth			11.3%	-3.6%	1.2%
Market Share	100%	84%	75%	9%	16%
Devices	12,958	9,361	7,431	1,930	3,597
Employees *	9,236	7,593	6,274	1,319	1,643
Employed Residents	2,961	1,423	NA	NA	NA
Gaming Taxes/Fees (millions)	\$ 121.00	\$ 109.60	\$ 103.6	\$ 6.0	\$ 11.4
Productivity Measures					
AGP/Device	\$ 63,899	\$ 74,063	\$ 83,623	\$ 37,254	\$ 37,448
AGP/Employee	\$ 89,649	\$ 91,308	\$ 99,044	\$ 54,511	\$ 81,984
Gaming Taxes/Employee	\$ 1,310	\$ 1,443	\$ 1,651	\$ 455	\$ 694
* Employees includes all related employment and contract workers of licensee regardless of their location of employment					
Colorado Department of Revenue (Gaming Division), Summit Economics					

Counties. As shown in the table, Gilpin County has an 84% market share of Front Range gaming and generated almost \$110 million annually in tax revenues for the State of Colorado in 2017. Most of the impact comes from Black Hawk which has dramatically transformed since 1990 with a declining residential population (from 237 to 120

people) and the construction of the tallest building between Denver and Salt Lake City. The casino concentration relative to residential uses is so great that it is reasonable to conclude that the Town of Black Hawk and the town's private casino interests are merged to a great degree into an informal public-private partnership recreation district.

Given the mature nature of the limited gaming industry it is also reasonable to conclude the Black Hawk casinos enjoy economies of scale which enhances their market share position. The productivity of Black Hawk casinos is much higher than Central City and Cripple Creek on a per device basis and higher on a per employee basis. From a market perspective, Cripple Creek is somewhat insulated as the only location in the Pikes Peak Region and Central City must focus on a niche segment since Black Hawk dominates the Denver/Boulder and Colorado Ski Country market.

Based upon casino employment and revenue trends since 2013, it is apparent that casino growth has leveled off in Gilpin County and declined in Teller County. These trends are indicative of a mature market challenged by continued revenue (AGP) which must adjust by pursuing productivity growth. The dramatic 50% decline in Cripple Creek employment combined with steady AGP volume and number of gaming devices is indicative of productivity increases through mergers, technology, or operational changes. Based upon local interviews, the industry in Cripple Creek has gone through a period of mergers and consolidation while Black Hawk, with its high productivity, continues expansion consistent with overall population and economic growth in the Denver metro area.

In addition to the economic and fiscal impacts of gaming from the Front Range casinos, additional impacts are created from the Indian casinos in LaPlata and Montezuma Counties. These impacts were not estimated by Summit Economics due to the inability to complete patron surveys at these casinos and due to the lack of current data on employment at the casinos. However, in a study performed by Nathan Associates for the American Gaming Association in 2017 and titled *The Economic Impact of Tribal Gaming: A State-by-State Analysis*, estimates of the total number of jobs supported by these casinos was 1,286 jobs, with an average income of \$36,716 per year. Assuming that the percentage of wages spent in the local economies is somewhat less than in the front range communities due to some expenditures being made on tribal lands and therefore not subject to State sales tax, it can be assumed that total new State sales tax from these earnings are about \$338,000 per year. It is not possible to estimate Colorado income tax revenues from the data provided in the Nathan Associates report.

### [Availability of Documentation for the Study Area](#)

This study goes beyond the comprehensive literature reviews of casino gambling impacts globally and in Colorado by researching numerous sources in an attempt to easily identify

impacts specific to the study area and communities within the study area. If data and impact information is readily available, then it could be used by LGLGI Fund applicants.

Both social and economic impacts are considered from a comparative (between counties or communities) and longitudinal (over time) basis. To meet documentation needs, ideally, there would be regular reporting regiments and processes from third party sources such as government agencies and the processes would be reasonably consistent over time and between locations. It is desirable to have consistent methods for collection, classification, and reporting of data regardless of reporting entity. Regardless of the collection source, the data should accurately identify impact trends and whether mitigation and enhancement strategies, to the degree they are pursued, are having desired impacts.

Table 3 summarizes qualitative scores associated with the documentation search. For the purposes of this effort social negative impacts discussed above were broken down further into social negative impacts in general and those related to addiction and problem gambling problems specifically. “Data Availability” refers to the current ease with which the indicator data is found. The “Degree of Standardization” refers to the consistency between different data sources for the same data or indicator. In some cases, data is collected ad hoc without any

specific collection or formatting requirements and in other cases data is collected very consistently from place to place and/or has uniform reporting requirements. “Reliability” refers to the degree to which we think the data can be counted on for its accuracy at the appropriate level of detail, and consistency in collection on a periodic basis; thereby providing longitudinal assessment opportunities.

As shown in the table, the assessment of data availability scores the lowest – in all cases scoring below 2 or moderate. But the data that is available

or might be reasonably generated through tools such as resident surveys or aggregated through State district and Federal bankruptcy courts either does or should be able to achieve moderate level of standardization and reliability. From this assessment, the expenses, costs, and other impacts most documented include economic positive and social negative related to addiction and those least documented are economic negative and social positive. In all cases there is opportunity to improve upon documentation. To see existing and potential sources of data, selected indices for each impact, and qualitative scores of documentation for each of the 32 impacts see the online Impact Matrix of the 32 impacts.<sup>1</sup>

Table 3: Documentation Assessment by Category

Documentation Assessment by Broad Category			
	Availability	Standardization	Reliability
<b>Average Score All Impacts</b>	<b>1.6</b>	<b>2.0</b>	<b>2.1</b>
Economic Negative	1.2	2.0	1.6
Economic Positive	1.7	2.2	2.0
Social Negative (General)	1.6	2.1	2.1
Social Negative (Addiction)	1.9	2.1	2.2
Social Positive	1.4	1.6	2.2
Scoring: Low = 1, Moderate = 2, High = 3			
Summit Economics			

<sup>1</sup> The Impact Matrix can be found in a shared folder along with other documents most relevant to this study. Go to [https://www.dropbox.com/sh/iqdx5we3wu015iu/AADgla-pcHGvgvb1RI\\_COF7sa?dl=0](https://www.dropbox.com/sh/iqdx5we3wu015iu/AADgla-pcHGvgvb1RI_COF7sa?dl=0)

## Economic Impacts Documentation

Three primary approaches were used to compile economic documentation related to the presence of casinos in the study area. These include 1) reviewing historical employment and population data from federal and state sources, 2) reviewing financial data from DOLA's County and Municipal Finance Compendium, and 3) surveying patrons in casino towns to develop inputs for regional impact modeling utilizing Implan.<sup>2</sup>

Population, jobs, and incomes changed as follows from 1990 to 2018 as casinos were introduced into the study area and its sub-areas relative to the state:

- The study area's share of the state's population only grew by 0.4%. Most of the change (0.3% of the 0.4% total share change) came from the Front Range urban counties (Boulder, Douglas, El Paso, Fremont, and Jefferson). Neither the Front Range casino nor Indian casino counties gained in share of population.
- All the study area grew in share of total employment during the same period from 34.2% to 35.8% (1.6% total share change) of the state with the Front Range urban counties creating 1.3% of the change and the Teller and Gilpin counties combined creating another 0.3% of the change by more than doubling their employment share of the state from 0.2% in 1990 to 0.5% in 2018. The employment growth compared to population growth resulted in the employment to population ratio increasing in Teller and Gilpin combined from .31 to .60 jobs per person.
- The study area's per capita income relative to the state stayed constant at 102.6% of the state average. The Indian casino counties actually experienced a dramatic increase in per capita income relative to the state average from 77.1% to 86.1%. While casino jobs on tribal lands did create local income where previously there was little, the change appears to have been heavily influenced as a result of the area attracting many retirees during the 1990 to 2018 period. Incomes in the Front range casino counties and their contiguous mountain counties actually decreased relative to the state from 88.5% to 83.8% and from 90.1% to 86.1% respectively.

Most of the employment growth in Gilpin and Teller counties came from the private sector between 1990 and 1993. While the casinos were major contributors, Teller County also saw the reopening of a gold mine during that period. Private growth led the way in Teller and Gilpin, but there was above average local and state government growth from 1990 to 1996. By 2000 local and state government growth leveled off and total employment growth began following the statewide pattern.

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<sup>2</sup> Minnesota Implan Group produces the Implan model which is commonly for regional modeling in the U.S. <https://implan.com/>

The disparity between the lack of relative population growth given employment growth is explained by commuting patterns. From 1990 to 2000 the number of commuters into Gilpin county increased from 44 to 3,210 (a 7,195% increase). Twenty-five percent of the new commuters came from Arapahoe and Denver counties which are not in the study area. Commuting into Teller County increased from 257 to 1,362 workers (430%) while commuting into LaPlata and Montezuma counties from neighboring study area counties increased by 213% and 13% respectively.

Since the introduction of limited gaming into Colorado in the early 1990s, there has been a substantial impact to the fiscal position and structure of much of the study area. However, most of the impacts appear related to revenue growth and, except in Gilpin County, are not necessarily the result of the introduction of gaming into the communities.

The changes in study area counties’ revenues relative to other Colorado counties generally follow a pattern similar to the changes in employment which implies changes in economic activity, as opposed to changes in population, drive local governmental revenues. As shown in Table 4, from 1990 to 2016, the study area’s share of total revenues relative to all Colorado counties increased from 39.5% of the total to 41% of the total. That 1.5% change is worth \$60 million based upon the \$4 billion in total counties’ revenues in 2016. All the change occurred in the decade following the introduction of casinos (1990 to 2000). The greatest change occurred in Gilpin where the County increased its state share of county revenues 0.4%, which is equivalent to \$16.3 million. On a marginal basis, Gilpin County’s annual revenue increases equals \$5,357 per additional person and \$3,016 per additional job. The state average for all counties during the same period is \$1,201 per additional person and \$1,572 per additional job. In short, the fiscal impacts of population and job growth appears much higher for the casino industry at the host county level.

Table 4: Total Revenue as a Percent of All Counties

	Total Revenues as % of All Counties			
	1990	1995	2000	2016
Total All Counties				
Dollars in Millions	\$ 1,148	\$ 1,523	\$ 2,135	\$ 4,015
Percent of Total	100.0%	100.0%	100.0%	100.0%
<b>Non-Study Area</b>	60.5%	59.6%	59.0%	59.0%
<b>Study Area</b>	39.5%	40.4%	41.0%	41.0%
<b>FR Casino Counties</b>	0.7%	1.2%	1.2%	1.2%
Gilpin County	0.2%	0.5%	0.6%	0.6%
Teller County	0.5%	0.7%	0.7%	0.7%
<b>FR Urban Counties</b>	34.3%	34.8%	34.6%	34.6%
<b>FR Mountain Counties</b>	1.9%	1.9%	2.1%	2.1%
Clear Creek County	0.5%	0.5%	0.6%	0.6%
Grand County	0.8%	0.7%	0.8%	0.8%
Park County	0.6%	0.6%	0.7%	0.7%
<b>Indian Casino</b>	2.6%	2.6%	3.0%	3.0%
Archuleta County	0.4%	0.4%	0.5%	0.5%
La Plata County	1.4%	1.5%	1.7%	1.7%
Montezuma County	0.8%	0.7%	0.8%	0.8%
DOLA, Summit Economics				

The rest of the study area also saw gains to revenue. The data shows increases in revenue share for the Indian Casino Counties of 0.4%, the FR Urban 0.3%, and the Front Range Mountain counties 0.2%. The only counties experiencing no growth in county revenue share were Montezuma and Grand.

The revenue increases in the study area relative to the other Colorado counties were largely due to increases in Inter-Governmental Transfers from the State to the counties. All of the casino counties experienced much of their relative impact shortly after the introduction of casinos. The Front Range Mountain contiguous counties actually trailed the rest of Colorado's counties in revenue growth until after 2000 when they experienced the fastest growth rate of all areas due to second and ex-urban growth as well as Inter-Governmental Transfers.

The dramatic increase from 1990 to 2016 in revenues in Gilpin County from Inter-Governmental Transfers enabled the County to substitute the transfers for local taxes. Total local taxes declined from 56.3% of total revenues to 18.1% in Gilpin. In comparison, Teller County saw local taxes increase from 44.4% to 48.4% of total revenues and all Colorado counties experienced total taxes increasing from 48.5% of total revenues to 55.9% from 1990 to 2016. Gilpin County has never had a sale and use tax, but property taxes dropped from 52.2% of total revenues in 1990 to just 17% in 2016. The addition of substantial gaming revenues made such a drop possible to the benefit of county residents and businesses.

The overall study area saw taxes increase to 60.2% of total revenues largely due to the FR Urban counties increasing their reliance on taxes to generate 62.4% of total revenues. The study area's relative reliance on sales and use tax doubled to almost 15% and property taxes as a percent to total revenues remained the same over the entire period. Social Service revenue dropped from 18% to 12.7% of total revenues.

Revenue increases in the study area drove higher expenditures. This is a normal response for most organizations unless they are intent on developing reserve funds, endowments, or making distributions to shareholders. Government expenditures typically fall into one of several categories: total operating expenses, capital outlays, debt service, transfers out to other governments and enterprises, and pensions.

Capital expenditure and debt service growth was most notable in the Front Range Casino counties in the decade after casino introduction. This appears related primarily to road and other infrastructure improvements. Operating expenditures also began climbing after gaming introduction in the Front Range Casinos counties. The same did not occur in the Indian Casino counties until more recently. This recent trend is consistent with other data points where the Indian Casino counties often parallel the Front Range Mountain Contiguous counties. We attribute the parallel movement in the two sub-areas of the study area to the second home and retiree market dominating the economies of Archuleta, La Plata, Montezuma (Indian Casino counties) and Clear Creek, Grand, and Park (FR Mountain Contiguous counties).

Taking a closer look at indexed growth of specific operating expenses highlights impacts in terms of local resource allocation. To create the index, 1990 line items are set to 1 (or 100%) and then financial data was averaged from 2012 to 2016 and compared to 1990 data to establish the 2012-16 index. The indices shown in Table 5 are compared to 1990 so that the Total Revenues for Total All Counties in 2012-16 were 4 times higher (400% increase) than

Table 5: Study Areas Current Period Index of Total Revenues and Operating Expenditures

Study Areas Current Period Index of Total Revenues and Operating Expenditures [1]							
	Total All Counties	Non-Study Area	Study Area	FR Casino Counties	FR Urban Counties	Mountain Contiguous Counties	Indian Casino Counties
2012-16 Index							
Total Revenues	4.0	4.0	3.9	6.3	3.8	5.0	4.5
Total Operating Expenses	3.9	4.0	3.9	6.0	3.8	4.9	4.7
General Government	3.6	3.9	3.3	6.3	3.0	4.6	4.6
Judicial	4.1	3.6	4.9	5.4	4.9	2.8	6.2
Law Enforcement & Jail	5.8	5.8	5.9	10.1	5.7	5.4	7.1
Fire[2]	6.2	5.4	10.4	6.5	13.2	NA	0.0
Roads & Highways	3.4	3.4	3.5	4.7	3.4	3.6	4.0
Solid Waste	8.1	8.5	7.1	NA	11.4	1.6	4.5
Health	5.0	5.1	4.9	6.8	4.6	8.7	4.9
Culture & Recreation	5.7	7.5	4.6	7.4	4.5	4.6	6.4
Social Services	2.8	2.8	2.7	3.1	2.6	4.3	3.3
Gold indicates substantially higher than All Counties and Non-Study Area				Blue indicated substantially lower than All Counties and Non-Study Area			
[1] Current Period is average of 2012 to 2016. Index represents average annual numbers relative to 1990 numbers. [2] There are numerous Fire Districts providing services throughout the state. Fire expenditures are therefore not comparable. DOLA County & Municipal Finance Compendium, Summit Economics							

1990. The indices comparisons, which are well after the initial introduction of casinos, show definitively that operating expenses increased far more dramatically in the Front Range Casino counties. The only exceptions were Cultural and Recreation expenses and dollars spent on Social Services. The Indian Casino counties

had notably higher increases in Judicial, Law Enforcement & Jail. Interestingly the Mountain Contiguous counties greatest relative expense increases were in Health and Social Services which is generally indicative of an aging in place, poorer population.

Comparable financial analysis was also conducted for all Home Rule towns in Colorado with 1993 populations under 10,000 people. This analysis concludes that half of the study area towns follow revenue patterns more similar to tourist towns where revenues and certain expenditures are much higher on a per capita basis. With police expenditures it was determined that the study area towns which are more like tourist towns had police related expenditures approximately twice as high as might otherwise be expected. The study area towns with the tourist revenue and police expenditure patterns were the casino host towns and their closest neighbors including Victor, Ignacio, and Cortez. Idaho Springs is on the statistical border between tourist and non-tourist towns in terms of police expenditures. Black Hawk is not comparable with any other town in Colorado due to high State transfers from gaming taxes with a population of only 120 people.

To assess the dispersion of economic and fiscal impacts specific to casino employment, the regional economic model Implan was used. Since most of the Central City and Black Hawk casino and related employment involves residents living outside Gilpin County and much of the employment for Cripple Creek casinos is outside Teller County, the counties of residence, as reported by the Division of Gaming, were used to run the model. As Table 6 depicts, the largest concentrations of casino employment by place of residence are in Jefferson (28.3%) and other counties including Denver, Arapahoe, and Adams (28.9%). In contrast, the casino employment impact on Gilpin County is very substantial when considered as a percent of total Gilpin County

Table 6: Employment Impact of Front Range Casinos by County

Place of Residence of Gaming Employees and % of All Workers					
	Direct Casino Employment by Place of Residence 7/1/2018	Indirect and Induced Employment from Gaming	Front Range Casino Distribution of Total Employment	LAUS Employment by Place of Residence 7/1/2018	Casino Employment Impact % of Total Employment
Boulder	68	14	0.8%	186,818	0.0%
Clear Creek	209	27	2.2%	5,859	3.6%
Douglas	119	15	1.3%	188,050	0.1%
El Paso	258	48	2.9%	323,755	0.1%
Fremont	56	6	0.6%	14,827	0.4%
Grand	-	-	0.0%	10,210	0.0%
Jefferson	2,567	424	28.3%	324,242	0.8%
Park	55	4	0.6%	10,878	0.5%
Gilpin	1,568	170	16.5%	3,636	43.1%
Teller	1,598	302	18.0%	12,157	13.1%
Other *	2,654	398	28.9%	1,929,453	0.1%
Total **	9,152	1,408	100.0%	3,009,885	0.3%

Source: DOG\_2017\_Fact Book and Abstract Final.pdf, and Colo LAUS system, Implan, Summit Economics.

employment. In fact, the employment estimates for Gilpin exclude non-casino based employment in the accommodations, dining and entertainment segments. With the additional employment counted, upwards to 80% of Gilpin County’s total employment relies on the casinos. Teller County is a far more diverse economy with only 13.1% of employment from the casinos and all other Front Range study area counties are barely impacted indicating casino employment adds lower

wage jobs to and helps diversify their economies.

Based upon the employment distribution one can infer a smaller relative impact on local tax revenues in all counties other than Gilpin and Teller from the casino industry. This lower tax revenue impact results from lower employment levels as a percentage of total employment in the respective counties as well as lower than average wages associated with the employment. Lower wage employees generate lower than average taxable expenditures and property taxes.

Most of the economic and fiscal impacts related to the introduction of gaming in Colorado have been positive. In the host counties and towns, we did not find vocal resistance to expanding the industry and statewide voters have passed several initiatives expanding gambling based, at least partially, on the public funding benefits purported. Based upon the general condition of the areas surrounding casinos, it appears property values increased although this was not verified due to the difficulty of accessing historical property tax records. Twenty percent of proceeds from the State Historical Society’s preservation fund, which itself is derived from gaming taxes, flow to host communities further enhancing property values through reinvestment.

The only negative economic impact likely to have occurred resulted from traditional tourist businesses and local non-profit gaming recreation like bingo losing access to their respective patrons. However, this could change in the coming years as the Colorado casino industry appears to operate in a mature market with growth coming only from general population and



economic growth in Colorado. The industry must reinvent itself to keep up with changes underway with sports betting in Colorado and in the legal gambling industry worldwide with online technology. The current closures of casinos due to the Covid-19 pandemic poses a serious threat to all of the economic benefits outlined herein.

## Social Impact Documentation

The previous section shows economic impacts, while dispersed, are most concentrated in the Front Range Casino host counties and towns. The same cannot be said for social impacts. Social negative and positive impacts largely follow the casino patrons and employees.

Without resident surveys it is hard to measure the impact casinos have had on the quality of life in host and neighboring communities in close proximity to the hosts. Based upon the economic rejuvenation that has occurred and greater local job availability, it is possible that the overall consensus is positive. Local support for industry expansion in host communities would seem to generally support this notion; however, interviews with local public officials and non-profits paint a bleaker picture of the negative social impacts of casinos.

There is clearly a substantial recreation or leisure benefit to gaming. This is inherent in the numbers of people who gamble in casinos. With the possible exception of problem gamblers, patrons are choosing to spend (and sometimes win) money at the casinos under market conditions. Excluding problem gamblers who are estimated to account for approximately 25% of the Adjusted Gross Proceeds (AGP), it is reasonable to conclude that the market expressed recreational value of Front Range casinos totaled over \$600 million in 2018.

Searching for documentation from non-applicant sources proved challenging. What was found suggests the following impacts at the county level.

- **Foreclosures:** County level comparisons from DOLA's Division of Housing shows a clear pattern of higher than state average foreclosure rates in 3 of 4 host counties (Gilpin, Teller, and Montezuma). El Paso County also has a higher rate, but it also has one of the youngest adult populations in the state due to the large military presence in the county. All other study area counties had below average foreclosure rates. Unfortunately, bankruptcy data, which is a better and more commonly used when evaluating gambling impacts, was not forwarded from the bankruptcy courts.
- **Property Crime:** Gilpin County exhibits extremely high crime rates compared to the State of Colorado's average and El Paso has property crime rates that are slightly above average. The rest of the Study Area does not exhibit particularly high property crime rates.

- DUI Arrests: Several counties exhibit DUI rates higher than the State of Colorado's average. Notably, Gilpin County has extremely high rates of DUI's. Additionally, Clear Creek, Teller, Montezuma, and La Plata also have higher than average rates of DUI's.
- Incarceration in County Jails: Census information from new legislation (HB19-1297) finds all four counties with casinos have higher than state average inmate populations per 1000 resident population. In addition, Clear Creek County, with good access to Central City and Blackhawk, has the highest rate. Since this data is based upon initial reporting, it will be interesting to see if pattern shown holds up over time.
- Divorce: The Front Range casino counties' (Teller and Gilpin combined) had 1990 to 1994 (early casino introduction period) rates substantially below the other areas in the state, but since that time have risen to become comparable to all areas in 2017-18.
- Suicide: Most recently the Front Range Casino counties and the Front Range Contiguous Mountain counties show higher rates than the other county groupings as well as the state as a whole. The same pattern applies to the Indian Casino Counties. All casino counties had the highest rates in 1990-91 so the tendency for higher rates of suicide may have preexisted before the introduction of limited gaming.

Data for other social impacts related to gambling addiction (restraining orders, child neglect and abuse, mental health issues, other crimes) were not found. Documentation was also not located for other crimes facilitated by the presence of casinos nor negative impacts related to increased traffic and traffic accidents or neighborhood noise.

Interviews and reviews of past grant funding, which reflect local perceptions of expressed impacts, strongly suggest the prevalence of drug and alcohol problems and lack of child supervision. These social problems are in many cases directly associated with a subset of the type of individuals drawn to the casinos as patrons and problem gamblers. In other cases, the problems appear to stem from the low wages and lack of benefits associated with casino employment as well as the late night and early morning hours for casino operations. These factors can lead to health-related issues which are sometimes exacerbated by the casinos' locations at high altitude.

Local perceptions have driven the type of funding sought through the LGLGI. As shown in Table 7, during the period from 2015 through 2018 about 15% of awards went to the provision of social services; 5% for health care; 21% for law enforcement; 12% for fire and ambulance; 25% for jails and 22% for judicial (District Attorneys). Combined, just under one fifth of all awards (19.3%) have gone to Human Services and Health, and 12.2% has gone to Fire and Ambulance. The balance has gone to law enforcement, jails and the judicial system in roughly equal proportions. Annually, there have been small variations, but the pattern has been relatively stable. The apparent equilibrium that has been established in recent years amongst the different types of awards does point to two slight trends – relative growth in Fire and Ambulance funding and decline in relative Human Services funding.

Table 7: LGLGI Funding Distribution 2015-18

LGLGI Grant Awards Distribution by Type, 2015-2018, Annual Distribution							
	Human Services	Health	Law Enforcement	Fire&Ambulance	Jail Operations	Judicial	Total
2015	17.9%	4.5%	18.8%	10.3%	26.6%	21.8%	100%
2016	15.9%	4.8%	21.4%	9.8%	25.2%	22.9%	100%
2017	14.0%	4.4%	21.4%	13.5%	24.9%	21.8%	100%
2018	11.8%	4.2%	21.2%	14.9%	25.4%	22.5%	100%

## Conclusions

This study endeavored to identify “documented expenses, costs, and other impacts incurred directly as a result of limited gaming”. The impacts identified by Dr. Robert Williams of the University of Lethbridge in Alberta, Canada are a complete list of documented impacts of casino introduction. In some cases, the impacts in Colorado are less pervasive due to unique demographic, cultural (lifestyle), operational, and geographic aspects associated with the Colorado casino industry, but they still exist. The only impacts clearly more prevalent in Colorado result from:

- The unique structure of the enabling constitutional amendment enhances infrastructure value through historical preservation in the host communities and throughout Colorado;
- The relative remoteness and mountain location of the casinos creates more access barriers for patrons and employees which in turn impacts public safety and transportation while somewhat limiting the frequency of patronage.

Overall, the **net impact of casino introduction on Colorado is most likely somewhat positive** given over \$100 million in net tax collections (after collection and regulatory oversight cost), direct employment by non-Indian casinos totals approximately 9,000 jobs (including full-time, part-time, temporary, and contract), an estimated 15% of patrons being from out-of-state (bringing in new revenue to the state), historic preservation benefits, and the use of limited gaming tax proceeds to invest in tourism promotion and targeted sectors for economic development.

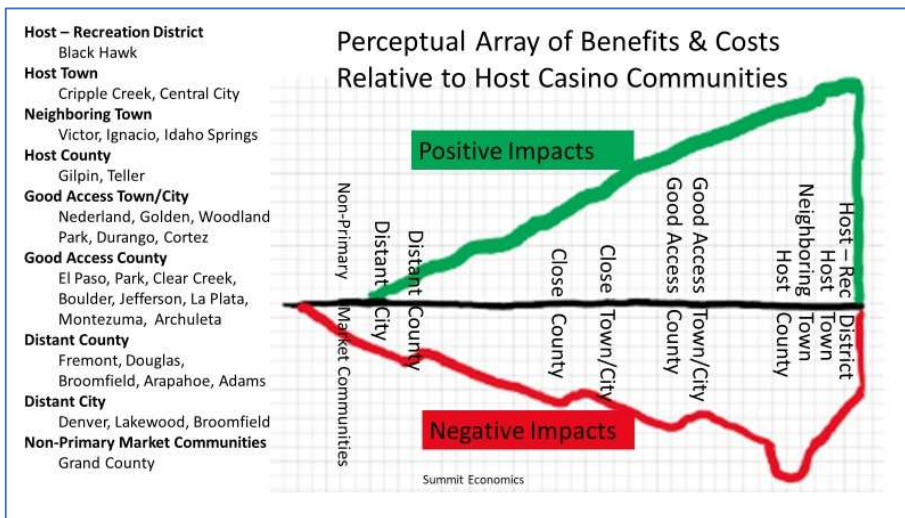
The net impact on host towns and counties is most likely positive given: 1) the tax revenue sharing formula, 2) approvals of additional casinos over time, and 3) the majority of patrons are not from the local community.

The bulk of the negative impacts stem from the small number of people who develop an addiction to gambling. These behaviors are typically more common among low and moderate income households. Even without an addiction problem, many patron households and many casino employees are at higher risk of problem drug, alcohol, and gambling behaviors. Three screening questions were used in host town surveys deployed as part of this study. The results

suggest that 7% of patrons appear to be problem gamblers and another 10% are “at-risk” gamblers. This is generally consistent with results from other surveys in North America. Given our estimates of unique patrons in Black Hawk, Central City and Cripple Creek, the percentages equate to 49,000 problem gamblers and 70,000 additional patrons potentially at-risk. Compared to a population base of 3,016,000 people over the age of 21 in the primary market areas for the Front Range casinos, this equates to problem gambling and at-risk rates of 1.6% and 2.3% respectively. Unfortunately, the impact is likely to be relatively larger in southwest Colorado as numerous studies point to higher incidences of gambling addiction and problems on tribal lands. Furthermore, this challenge will soon become widespread throughout Colorado with the introduction of sports betting which will not be confined by geographic access or the lack thereof. The risk of negative social behaviors often manifests itself beyond the individual, impacting households and local public safety.

When considering the distribution of impact in the study area, we conclude the geographic distribution of costs and benefits can be conceptually mapped as shown Figure 4. Starting with host communities on the right and moving left to greater distance from the hosts, the array of community classifications is shown along with the conceptual level of positive impacts (green) and negative impacts (red). As would be expected, the more distant a community is from the casino host town, the fewer impacts incurred by the community. Based upon the different areas studied for this report, we classify the study area and larger market area towns, cities, and counties as shown in the perceptual array and legend to the left.

Figure 4: Perceptual Array of Benefits & Costs



There are a few additional notable conclusions. To the far right of the array is Black Hawk as a Host Recreation District with a population of only 120 people (down by 50% since the introduction of limited gaming) and several high-rise casinos to support a 75% market share of the Front Range casino market. Given the lack of residential land use and its unique position as a recreation

district, Black Hawk has relatively few social costs as opposed to commercial costs. The commercial benefits have clearly been substantial with expansion over the years and the types of costs currently incurred are primarily to maintain public safety for commercial benefits around the casinos. Black Hawk can essentially be viewed as a public-private partnership.

Neighboring Towns and Host Counties, especially when small and/or more affordable and lower income, see a substantial rise in costs due to close proximity to negative spillovers from the casinos. While they can experience benefits from nearby employment and have great recreational access to the casinos, the social costs from problem gambling and other addictions is likely to be higher on a per capita basis. The same can be said for Host Counties in general. County level fiscal costs are generally higher due to the provision of social services and county jails.

Other key observations from the study include:

- The research literature on impacts specific to Colorado is far less thorough than impacts found through numerous international studies. While this study is able to fill some missing documentation voids in previous Colorado impact studies, especially in the economic and fiscal realm of impacts related to the study area, there are still voids.
- The lack of readily available Colorado documentation of impacts from third party sources appears to have led past applications to the LGLGI fund to focus on the most visible impacts perceived by local public and non-profit officials. While applicants have made efforts to document impacts on their agencies to support their grant applications, the documentation is inconsistent among similar agency types and some agencies may be at a disadvantage in applying.
- The applications naturally tend to focus more on local symptoms, most notably related to public safety (law enforcement and health) which typically manifest closer to the casinos. Applications frequently do not address the more fundamental or root causes of negative socioeconomic impacts such as problem gaming and low-income workers who sometimes have histories of drug, alcohol, or gambling problems and who must often leave children unsupervised at night, or travel greater distances with less reliable transportation to find affordable housing.
- The long standing definition of the study area or impact zone of casinos has one county (Grand) that demonstrates virtually no impact due to high mountain wilderness areas separating it from Gilpin County. Furthermore, at least two urban counties not included in the Study Area (Denver and Arapahoe) provide employees and patrons to casinos which means they are impacted as well.

## Recommendations

The central question of what constitutes documented expenses, costs and other impacts has been established by this study. There are 32 typical impacts from the introduction of casino gambling, most of which appear to exist to some extent in Colorado.

Thus, our first recommendation is that applicants who apply for funding should not have to document that the specific impact they are addressing actually exists. This is because 1) the extensive research literature has already done this to a large extent; 2) trying to isolate the unique impacts of casinos and making causal attributions is a very difficult thing to prove

(challenging even for the formal scientific research studies); and 3) because this effort favors resource rich applicants who have the time and money for such an undertaking.

Rather, we recommend **a more formulaic approach** so as to 1) decrease the documentation burden to applicants, 2) “level the playing field” for applicants with less resources and/or who are addressing impacts that are harder to document, and 3) make the application evaluation and funding allocation process more efficient and objective.

The three elements in this formulaic approach concern:

1. Our rating of whether the impact is important, relevant, and still having an ongoing influence in Colorado in 2020. The 32 impacts can be broken down into three groups – “Important & Current”, “Not Important” or “Not Current”, with important current impacts meriting a higher rating. This recognizes that some impacts are not important enough to merit intervention (e.g., changed attitudes toward gambling); some impacts are not relevant as applications cannot be made to mitigate them (e.g., increase state government regulatory costs to oversee the casino industry, increased government revenue); and some impacts that occurred after initial casino introduction (1991 to 1993) have much more limited influence and/or presence 17+ years later (e.g., change in property values; decreased illegal casino gambling; positive or negative impacts on competing or complementary businesses; etc.)
2. Our rating of whether the impact is potentially modifiable with public monies creates two categories “Modifiable” or “Not Modifiable”. Modifiable impacts merit a higher rating. This recognizes that certain impacts are almost impossible to change (e.g., increased socioeconomic inequality due to differential patronage of who gambles), whereas other impacts could be reduced with enhanced intervention (e.g., increased funding of prevention and treatment to reduce the incidence and prevalence of problem gambling). [Note: applications can still be made to “compensate” for a negative impact, they just would not be rated as highly as applications that had the potential of reducing the impact].
3. Our rating of the net cost to a community due to its host or non-host status and its geographic proximity to the casinos. This recognizes that although impacts are stronger for communities closest to the casinos, host communities derive much greater benefits relative to non-host communities, thus the net cost to host communities is much less.

Table 8 combines elements 1 and 2 above into an Impact Score. The five impact areas highlighted in blue are considered important, relevant, and current and are scored either a 3 or 5 based on our assessment of their potential modifiability. Impacts where public expenditures are either moderately or highly likely to modify the impact receive the highest score of 5. Impacts with low modifiability are scored 3. Impacts either not important, not relevant, or not currently present to any significant extent fall into the last “All other impacts” group (score of 1). An impact score could be increased one level if an applicant makes a strong argument as an “All other impact” is actually important, relevant, and current (moving from a score of from 1 to

Table 8: Impact Scores

Impact Scoring		
Impact	Modifiability	Score
Increased rates of gambling addiction and indices related to gambling addiction (bankruptcy, divorce/separation/restraining orders, child neglect/abuse, mental health problems, addiction-related crime, decreased work productivity, increased treatment, and prevention costs)	Moderate to High	5
Low modifiability impact (below) where Applicant strongly and favorably argues that the impact can be modified with the expenditure of public monies	Moderate	4
Increased service costs to service the casino (i.e., police services, fire services, public transportation)	Low	3
Increased infrastructure costs to service the casino (e.g., road repair, utilities, etc.)	Low	3
Increased rates of crime, policing, incarceration, and probation services facilitated by the presence of a casino	Low	3
Increased traffic, noise, and traffic accidents due to casino traffic	Low	3
All other impacts argued to be important, relevant, and current	Varies	2
All other impacts	None	1
Dr. Robert Williams, Summit Economics		

2) or if a great modifiability argument is made for a “low” rating (moving from a score of 3 to 4). [Note: Increasing scores from 1 to 2 or 3 to 4 should be accompanied by excellent evidence. We offer these enhanced scores given changing markets, technology and social health conditions may add more of the 32 impacts to the important, relevant, and current category (from 1 to 2) or the changing conditions may create modifiability opportunities (from 3 to 4). For further discussion see Final Thoughts section below.]

Table 9 is a listing of the net negative impact/cost to a community and its score due to its status as a host or non-host community and its geographic proximity to the casinos [Note: the Host Towns are included even though currently ineligible legislatively].

Table 9: Community Scoring

Community Scoring	
Community	Score
Non-Host Neighboring Town (Victor, Ignacio, Idaho Springs)	5
Host County (Gilpin, Teller, LaPlata, Montezuma)	4
Non-Host Town or County with Good Access (See Figure 4)	3
Host Town (Black Hawk, Central City, Cripple Creek)	2
Distant Town, City, or County (See Figure 4)	1
Dr. Robert Williams, Summit Economics	

The scoring model for applications that we propose is to multiply the Impact Score by the Community Score to arrive at an overall **Impact and Community Score** that would range from 1 to 25. This score becomes the major overall scoring factor as described below.

For overall application funding prioritization, we recommend a Weighted Decision Matrix (WDM) approach be used. Prioritizing applications assists in allocating resources when funding

requests are likely to exceed funding availability. The WDM process is:

- Verifiable so that third parties can review and audit the process;
- Relatively simple to implement;
- Valuable for deliberation and decision making.

A WDM establishes a set of criteria and each application is rated on each criterion. The criteria are weighted as some are deemed more important than others. Final scores are determined for each application by multiplying the rating given to each application for a single criterion times the weight of the criterion and then summing to a total score for each application. A sample weighted decision matrix is shown in Table 10 for three applications (A-C) and three weighted criteria (1-3). The scores for each application are calculated based upon the application ratings (maximum of 25 for each criterion) times the criteria weights. In the sample case, Application B receives the highest total score of 22.5.

Table 10: Sample Weighted Decision Matrix

Sample Weighted Decision Matrix								
Criteria	Criteria	Application A		Application B		Application C		
	Weight	Rating	Score	Rating	Score	Rating	Score	
Criterion 1	0.5	15	7.5	22	11	25	12.5	
Criterion 2	0.3	20	6	25	7.5	15	4.5	
Criterion 3	0.2	10	2	20	4	10	2	
Total	1		<b>15.5</b>		<b>22.5</b>		<b>19</b>	
Summit Economics								

The recommended approach deviates from the most recent approach used for awarding grants in several ways. The current

approach uses a Pros and Cons assessment of each application. Pros and Cons assessments are more subjective and do not establish specific evaluation criteria nor a final score. Using a weighted decision matrix is considered more quantitative influenced less by individual preferences. With a WDM criteria weighting and rating systems can be established in advance of the actual application review. If a deliberative process is used to establish weights and rates, then upfront clarity can be brought to the entire evaluation process and it is more likely to pass external reviews.

In addition to having a clear and verifiable process for application evaluation using a decision matrix, there needs to be some sort of funding scheme allocating funding once applications are scored. The funding scheme assumes there will always be more dollars requested than dollars available. We recommend an incentive scheme based upon relative total scores of the applicant pool. Common approaches for funding schemes are based upon final ranking, percentiles, or means and standard deviation rankings. For instance, using Table 8, Application B might receive 100% of their funding request, Application C could receive 70% and Application A would get the remainder. Or maybe there is a minimal threshold to qualify for funding such as within 80% of the top two scores. In the Table 8 sample, Application A would not be funded as it just misses the minimum threshold with a score at 75% of the top two ( $15.5 / [(22.5 + 19) / 2] < .80$ ). The possibilities for funding schemes are endless, but the scheme adopted should also



be determined in advance and put caps or limits on funding requests by applicants based upon historical requests, total applicant budget size and/or some other legitimate factor.

We recommend two type of decision criteria for the WDM. The first is fixed for a period of no less than three years and is connected to the purpose of this report – namely documented impacts. The other type of criteria is flexible and can be adjusted annually. Based upon the intent of this study to document impacts and recommend a process, the fixed criterion should be weighted most heavily – between 40% and 50% of all evaluative criteria. The rating for this criterion would be the calculated **Impact and Community Score** discussed above.

The flexible criteria should be limited in number (3 to 5) and assigned weights by the LGLGI Fund Advisory Committee. We recommend the following criteria be used initially.

- Accentuation, mitigation, efficiency, and effectiveness (AMEE) potential of an applicant’s proposed program on the application’s targeted impact(s). How much modification of an impact is targeted or deemed reasonable when accentuating a positive impact or mitigating a negative impact? If no modification is anticipated, then what are the expectations to increase efficiency and/or effectiveness with the former seeking to create long-term cost savings through ongoing program investment and the latter seeking to improve some aspect of program effectiveness. This could include new programs, technology, capacity building or training to name a few. We recommend a weighting of this criterium in the 15% to 25% range. [Note this criterion differs from the Impact and Community Score criterion by focusing on magnitude of AMEE anticipated whereas the Impact Score which is part of the Impact and Community Score focuses on the likelihood that modification can occur].
- Proposed output or outcome metrics and cost-effective data collection methods to demonstrate grant impacts as part of a post grant review. This could be as simple as documenting baseline or pre-existing conditions and program goals as well as how progress towards the goals could be measured. It is hoped the grant documentation process will provide future documentation of impacts and over time greater consistency between communities might be encouraged. The weight should be 15% to 25%.
- Innovation should be included and be thought of as a demonstration program which, if successful, could be scaled or emulated in other gambling impacted communities and maybe in other communities in general. The weight should by 5% to 15%.
- Grant leverage consistent with other State of Colorado priorities that are also being allocated public monies or with funding from groups other than the applicant seeking to make a positive social impact investment. For instance, local government staffing might be approved for outreach to support a statewide initiative on gambling addiction education. The weight should by 5% to 15%.

A sample of five community applications using these criteria and weights is shown in Table 11. Certain locations are favored over others as they are closer to the casinos and therefore tend to

have greater intensities of net impacts. Similarly, impacts that can be more readily modified are given priority. Multiplying the Impact and Community scores as described previously yields the overall rating for each application under the Impact and Community criterion which is weighted .45 of 1 or 45% of the scoring process. The Non-Host Neighbor gets a rating of 15 (Impact Low 3 X Community 5) as does the Good Access Town (Impact Moderate to High 5 X Community 3). Two separate applications are shown as Host County Program A and Host County Program B. [Note: we recommend all separate programs of common public entities

Table 11: Sample WDM with 5 Applications

Sample of WDM Evaluation Model for LGLGI Fund						
Community Type		Non-Host Neighbor	Host County Program A	Host County Program B	Good Access County	Good Access Town
Impact Modifiability		Low	Low	Varies	None	Mod-High
Ratings	Weight					
Impact and Community	0.45	15	12	8	3	15
AMEE	0.15	10	20	25	20	15
Outcome Metrics	0.15	20	10	22	20	25
Innovate	0.10	10	5	20	10	10
Leverage/ Complement	0.10	5	5	25	12	25
<b>Score (Rating X Weight)</b>						
Impact and Community		6.75	5.40	3.60	1.35	6.75
AMEE		1.50	3.00	3.75	3.00	2.25
Outcome Metrics		3.00	1.50	3.30	3.00	3.75
Innovate		1.00	0.50	2.00	1.00	1.00
Leverage/ Complement		0.50	0.50	2.50	1.20	2.50
<b>Total Score</b>		<b>12.8</b>	<b>10.9</b>	<b>15.2</b>	<b>9.6</b>	<b>16.3</b>
<b>Ranking (1 to 5)</b>		<b>3</b>	<b>4</b>	<b>2</b>	<b>5</b>	<b>1</b>
Summit Economics						

apply on an individual basis rather than on a county-wide, combined basis]. In the sample it shows that Host County Program B gets a “Varies” Impact Modifiability classification (e.g., assume an application for design and legal services to supplement other state and private funding to bring high speed internet services into the county to support sports betting at casinos) and thus rates an 8 on the Impact and Community criterion (Impact 2 x Community 4). However, Program B almost maximizes its application for all other criteria and, as a result, is the second highest ranked Application with a total score of 15.2. Host County Program A get 12 Impact and Community rating (Impact 3 x Community 4), but scores poorly on all other criteria except the AMEE criterion. The total score for Host County Program A is only 10.9 ranking it fourth. The Good Access County application does well on most criteria but is not addressing an important, relevant, and current impact and therefore only gets an Impact and Community

rating of 3 and a total score of 9.6. The highest total score goes to the Good Access Town with a “Mod-High” Impact Modifiability rating. In short, while counties and towns cannot change their Community Score and have limited maneuverability on the Impact Score, there are numerous opportunities to submit an attractive application while staying within the parameters of documented expenses, costs, and other impacts.

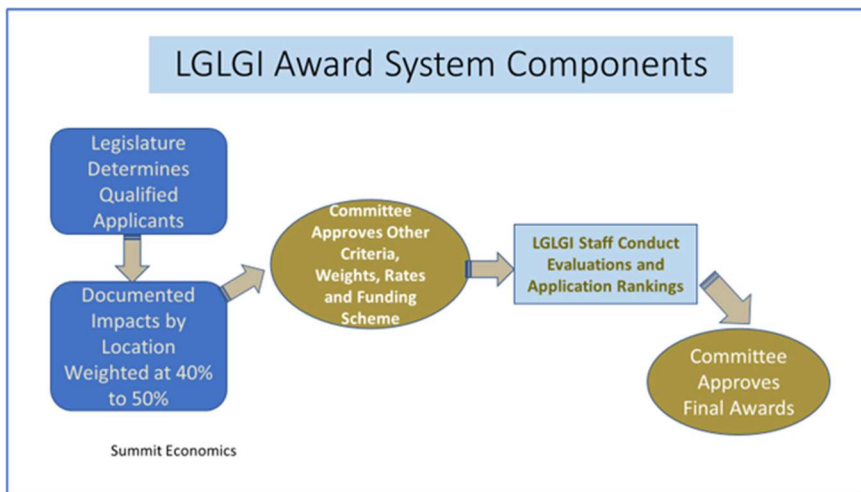
In addition to establishing a more objective approach our recommendation:

- Changes the focus from a reimbursement model for past local government expenditures to a model geared towards pursuing future outcomes that in some way improve upon the status quo.
- Embraces the possibility of accentuating the positive impacts of gambling to the State and local communities which are numerous.
- With legislative approval, expands possible applicants to include host towns and more counties in the Denver metro area providing employees and patrons to Gilpin County casinos.
- Encourages, but does not require applicants demonstrate efforts to collect and track casino industry impacts most relevant to the applicant’s community and clientele.

Overall, our recommended approach requires less documentation from applicants on the front-end and more reporting of the socioeconomic return on the use of public funds on the tail end of a grant cycle. Such a tail-end grant review process opens the door to multi-year grants under certain circumstances. For instance, Non Host Neighbors, which clearly have a scoring advantage, might be targeted for multi-year grants for capacity building. Innovation would be encouraged, and good programs can more easily be emulated in other

communities.

Figure 5: Major Elements of Recommended award System



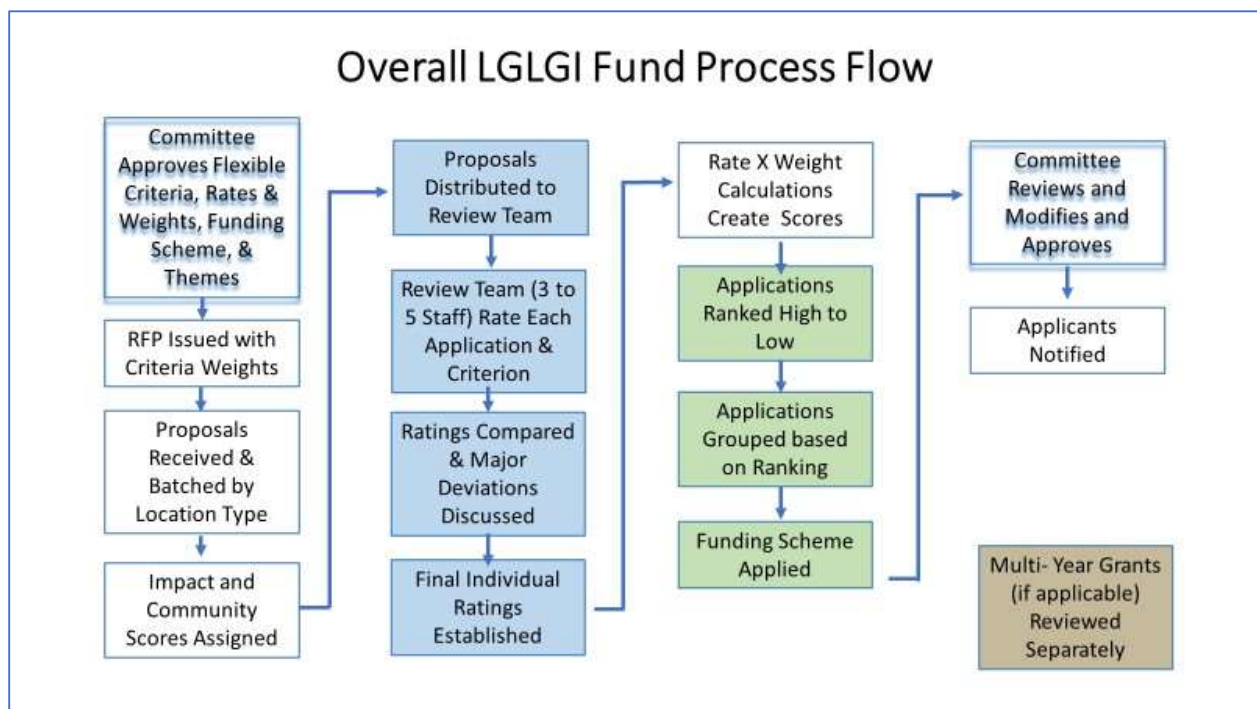
The overall LGLGI Award System from legislative directive through final decision making is shown in in Figure 5. In order to fully respond to documented impacts, we assume the Colorado Legislature expands the eligible applicants to include the primary market area counties of the Denver Metro area as well as the Host Towns even though the latter received

gaming tax proceeds. The LGLGI Committee should approve flexible criteria, weights, rating systems, and funding schemes at the beginning of a grant cycle. This alone should satisfy the

State auditor. LGLGI staff conducts the evaluation process and the Committee approves final awards.

Figure 6 shows the process in detail. The Committee is involved on the front and tail ends (shaded boxes) of the process. The uncolored boxes represent automatic steps conducted by an administrator or assistant, the blue colored boxes represent steps by the evaluation team, and the green colored boxes are steps associated with the funding scheme. [Note: We recommend grouping applications based upon quintiles whereby the top 20% would tend to receive their full funding request and the bottom 20% would receive no funding. The middle 60% should be allocated funding based upon funding availability, but in general, the design of programs or projects requires some minimum funding level, typically above 50%, for the program/project to be reasonably implemented. Thus, it would be better to fund the 2<sup>nd</sup> and 3<sup>rd</sup> quintiles at 70% of requested amounts with no funding to the 4<sup>th</sup> quintile rather than try to fund the middle three quintiles at 45% of their requested amounts.]

Figure 6: Process Flow



## Final Thoughts

Two dramatic changes have occurred as this report was researched and written. First, the voters of Colorado approved a constitutional amendment to allow sports betting in casinos and throughout Colorado on mobile apps from companies based in the state. Second, the Covid-19 pandemic shut down casinos along with much the global economy in March 2020.

Sports betting will promote new mechanisms for delivering gambling opportunities to patrons even though it is unlikely to cannibalize casino revenue. Sports betting is more likely to have a small beneficial revenue impact for the casinos that add this type of gambling to their repertoire. However, because sports betting will be available online, it will further accelerate the trend of Colorado gamblers to seek online access to all types of gambling. The online trend is consistent with most consumer trends and given the casino industry in Colorado is at a mature market stage, it will need to adapt and innovate in order to ensure that it continues to thrive. Given the industry's offerings appear regulated by the Colorado constitution, adaptation will be hindered.

The Covid-19 pandemic makes adaptation and innovation paramount in the coming few years. While the casino industry and all of the impacts it created at introduction and continues to create today will remain, the future size of casino based gambling in Colorado is in question. If the industry significantly declines the impacts articulated in this study will largely reverse so that both benefits and costs dissipate to some degree.

These new realities make it reasonable for the LGLGI Committee to create annual funding themes. A theme might focus on adapting the industry and facilities to provide for greater health safety in response to Covid-19. Additional themes might focus on developing more local treatment and prevention programs or using new technologies to increase efficiency and effectiveness of public safety. If a theme is pursued in any given year, it should be formally adopted in advance and the flexible criteria adjusted to account for the theme.